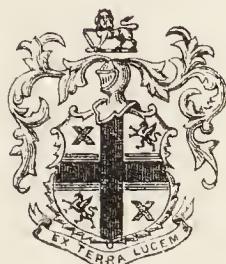






COUNTY BOROUGH OF ST. HELENS.



Annual Report  
OF THE  
Medical Officer of Health,  
FOR THE YEAR, 1924.

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FRANK HAUXWELL, M.B., Ch.B., D.P.H.

Medical Officer of Health,  
and School Medical Officer.

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St. Helens:

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TO THE MAYOR, ALDERMEN AND COUNCILLORS  
OF THE COUNTY BOROUGH OF ST. HELENS.

Mr. Mayor, Ladies and Gentlemen,

I have the honour to submit the 52nd Annual Report on the health of the Borough for the year ending 31st December, 1924.

The form of the report follows the lines of the previous and is the fourth of the series of short or "ordinary reports" required by the Ministry of Health.

According to the estimate of the Registrar General, the mid-year population of the Borough was 108,700. The birth rate for the year was 24.1 per thousand of the population. This rate shows a continuous decline since 1920 but the fall during 1924 is not so serious as in the past three years. The natural increase of population during 1924 was 1,320 as compared with 1,338 during 1923.

The death rate was 12.0 per thousand of the population, and the infantile mortality 103.5 per thousand births. Both these are increased rates compared with the year 1923 when the corresponding rates were 11.9 and 91.3 respectively. Tuberculosis caused a larger percentage of deaths during 1924 than in the previous year, being responsible for 11.0% of all deaths in 1924 as compared with 8.7% in 1923. There was also an increase in the Zymotic death rate from 0.39 per 1,000 of the population in 1923, to 0.68 in 1924. This increase was mainly due to increased numbers of deaths from Measles. The effect of the measles epidemic is also apparent in the increased infantile mortality where, together with an increase in deaths from congenital defects, it is the main cause of the increased number of deaths of children under 1 year of age.

A return of Measles in epidemic form occurred during the year; the epidemic was marked by its persistence over many months rather than an excessive number of cases at any one time. During August and September there also occurred a remarkable outbreak of Typhus Fever, which, though causing much anxiety at the time, was happily restricted to 8 cases.

For the general work of the Department I would refer to the various sections of the report.

I take this opportunity of thanking members of the Council for the kindness and consideration shown to me in the conduct of my work, and I have to record my hearty appreciation of the loyal and willing co-operation of all members of my staff.

I have the honour to be,

Your obedient Servant,

FRANK HAUXWELL

October, 1925.

## GENERAL STATISTICS.

Area (Acres) ... ... ... ... ...	7284
Population (Census, 1921) ... ... ... ...	102640
Estimated Population mid-year 1924 ... ...	108700
*Number of structurally separate sets of premises intended or used for habitation ... ...	18516
*Number of families or separate occupiers ... ...	19688
Rateable Value (year ending 31st March, 1925) ...	£391657
Sum represented by a penny rate ... ...	£1500

\* From Census, 1921.

A structurally separate set of premises may be defined as any room, or set of rooms, having separate access either to the street or to a common landing or staircase. The figure furnished includes a small number of premises, which, for one reason or another were vacant on census night.

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## STAFF.

Medical Officer of Health, Administrative Tuberculosis Officer, Medical Superintendent Corporation Hospitals, and School Medical Officer :

Frank Hauxwell, M.B., Ch.B. (Glasgow), D.P.H. (Camb).

Deputy Medical Officer of Health :

W. Howard Blackburn, M.A., M.B., B.Ch., M.R.C.S.,  
L.R.C.P., D.P.H. (Camb).

Assistant Medical Officers of Health :

J. A. Fraser, M.B., Ch.B. (Edinburgh), D.P.H. (Edinburgh)  
Eileen Dowling, M.B., Ch.B. (Liverpool), L.M. (Rotunda).

Dental Surgeons :

R. M. Timperley, L.D.S.  
W. A. Linnell, L.D.S. (from 16th June, 1924).

## Sanitary Inspectors, etc. :

W. J. Milligan (1).....	Chief Sanitary Inspector.
H. Brown (1), (4), (5), (6), (8).....	Sanitary Inspector.
H. Lowe (4), (6).....	do.
J. Skeath (4) .....	do
T. Blashill (1), (5).....	Superintendent of Public Abattoir.

## Matron of Corporation Hospitals :

Edith Carder.

## Health Visitors, School Nurses and Tuberculosis Nurses :

Ethel Denman,	(1), (2), (3), (7)	*Carolyn Mellor,	(3), (7)
Grace Healey,	(2), (3), (7)	May Dyer,	(3), (7)
*Ada Rogerson,	(2), (3)	Emily Corrish,	(2), (3)
Florence Faber	(3), (7)	*Winifred Bishop,	(3), (7)
Mary Riding	(3), (7)	*Emily Smith,	(3), (7)
Winifred Cowan	(2), (3), (7)	Mary H. Masterson,	(3), (7)
Florence Wilkinson,	(7)	Anne Phillips,	(3), (7)
Amy Coates,	(2), (3), (7)	Daisy C. Cruickshank,	(3), (7)
Dorothy Grime,	(2), (3), (7)	Nora Hogan,	(3), (7)
*Gertrude Jackson, (1), (3), (4), (7)		Selina Hacking,	(3), (7)
Louisa Austin,	(3), (7)	Grace Hawkins,	(3), (7)
*Ada Anson,	(3), (7)		

## School Dental Nurses :

· Ethel M. K. Elliot	(7)	Dorothy Davies,	(9)
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- (\*) Resigned during the year.
- (1) Sanitary Inspector's Certificate of the Royal Sanitary Institute.
- (2) Health Visitor's Certificate of the Royal Sanitary Institute.
- (3) Certificate of the Central Midwives Board.
- (4) Sanitary Inspector's Certificate of the Liverpool University.
- (5) Certificate for Meat Inspection of the Royal Sanitary Institute.
- (6) Certificate for Meat Inspection of Liverpool University.
- (7) A trained Nurse.
- (8) Certificate for Building Construction, first stage.
- (9) Certificate for Health Visitor and School Nurse. Sanitary Training College.

## The following are part time officers :

J. Unsworth, M.B., B.S., (Lond.) .....	Physician to the X-ray Department, Tuberculosis Dispensary.
H. E. Davies, M.A., B.Sc., F.I.C. .....	Public Analyst.
R. F. Watson, M.R.C.V.S. .....	Veterinary Inspector.

## Table i.

TOTAL RAINFALL IN INCHES IN ST. HELENS SINCE 1890.

1924	46
1923	45
1922	44
1921	43
1920	42
1919	41
1918	40
1917	39
1916	38
1915	37
1914	36
1913	35
1912	34
1911	33
1910	32
1909	31
1908	30
1907	29
1906	28
1905	27
1904	26
1903	25
1902	24
1901	23
1900	22
6681	21
8681	20
7681	19
9681	18
5681	17
4681	16
2681	15
7681	14
1681	13
0681	12
INCHES	11

# TOURIST INFORMATION SERVICE 1990

5000

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000

## I.—METEOROLOGY.

At the Corporation observatory in Victoria Park readings are taken once a day at 9 a.m.

The total rainfall for the year was 38.98 inches. The annual rainfall since 1890 is shown in Table 1. The highest temperature in the shade during the year was on July 13th, when it reached 84.5°F. The lowest was 26.7°F on the 17th November,

A special deposit gauge is also maintained in the police parade ground for the collection and measurement month by month of the amount of atmospheric pollution. This has shown the amount of total solids deposited in St. Helens during the year April 1924 to March 1925, to be 15272 metric tons per 100 square Kilometres or approximately 1374 lbs. per acre. The accompanying statement shows the amount deposited in St. Helens as compared with that at other stations during the same period, the figures given being the number of metric tons of total solids deposited per 100 square Kilometres (a metric ton per square Kilometre is approximately 9 lbs. per acre).

St. Helens .....	15272
Liverpool .....	23087
Kingston-upon-Hull .....	16660
Southport (Hesketh Park) .....	4895
London—Meteorological Office.....	13097
Finsbury Park.....	11687
Ravenscourt Park .....	9855
Southwark Park.....	11364
Wandsworth Common .....	10950
Golden Lane .....	18009
Archbishops Park .....	16144
Victoria Park.....	10333

## II.—VITAL STATISTICS.

### EXTRACTS FROM VITAL STATISTICS OF THE YEAR :

		M.	F.	Total.
Births :—	Legitimate ...	1309	1249	2558
	Illegitimate ...	39	31	70
	Totals ...	1348	1280	2628

Birth Rate ... 24.1

Deaths :—	Total ...	1308
	Death-rate (R.G.) ...	12.0

Number of women dying in or in con- sequence of child birth ...	from Sepsis ...	... 5
	from other causes ...	12

#### Deaths of infants under one year of age :—

	M.	F.	Total.
Legitimate ...	135	126	261
Illegitimate ...	7	4	11
Total ...	142	130	272
Infant Mortality ...	103.5		

Deaths from Measles (all ages) ...	...	...	...	...	29
„ Whooping Cough (all ages) ...	...	...	...	...	11
„ Diarrhoea (under 2 years of age) ...	...	...	...	...	23
„ Tuberculosis ...	...	...	...	...	145
Zymotic Death Rate ...	...	...	...	...	0.43

Table 2 gives a summary of the vital statistics for St. Helens since 1873.

**POPULATION.**—The procedure followed in adjusting the local census population of 1921 in order to arrive at an estimate of the resident population of St. Helens for that year, which could suitably be used in connection with statistics of births and deaths, is described in the Annual Report for 1921.

**Table 2.**  
Statistics for St. Helens since 1873.

YEARS	Population.	Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mortality Rate.	Rate of Persons Married.	DEATHS FROM							
							Small Pox.	Measles.	Scarlet Fever.	Typhoid Fever.	Typhus Fever.	Diarrhoea.	Whooping Cough.	Diphtheria.
1873	45,500	46.6	23.6	2.75	148		4	19	99	20	0	94	9	25
1874	46,188	46.3	31.4	5.03	198		0	29	238	19	0	110	41	26
1875	48,668	45.4	24.6	2.51	138		0	4	21	45	0	101	31	41
1876	52,246	45.6	23.2	3.20	149		0	101	21	42	0	94	7	30
1877	54,463	44.3	22.8	2.09	150		0	2	12	22	0	77	48	31
1878	57,534	43.2	23.9	3.09	165		0	4	22	35	0	135	15	74
1879	57,522	41.1	22.4	5.51	136		0	143	82	31	0	52	2	29
1880	58,807	41.6	20.0	2.92	169		0	0	27	32	0	131	71	8
1881	57,575	43.5	21.6	2.03	128		0	14	27	45	0	76	3	22
1882	58,903	43.7	25.4	4.95	180		0	205	35	24	0	85	36	38
1883	60,263	40.69	21.65	2.5	143		0	3	14	31	0	69	24	11
1884	61,584	42.50	24.16	5.3	173		0	131	16	33	2	131	9	11
1885	62,932	39.93	23.32	3.5	168		0	81	13	7	1	56	53	11
1886	64,311	40.70	22.46	5.2	172		0	102	34	28	0	122	41	10
1887	65,718	37.00	21.69	3.9	163		0	53	35	34	0	101	28	11
1888	67,158	39.20	19.80	3.1	151		0	38	11	22	0	65	61	21
1889	68,628	39.86	23.50	4.18	177		0	78	3	81	1	85	15	29
1890	70,132	38.90	25.43	5.3	170		0	19	181	24	1	74	68	13
1891	71,509	40.80	26.02	3.0	180		0	54	24	26	0	78	29	9
1892	72,399	40.2	21.0	2.64	147		1	23	18	25	0	84	31	12
1893	73,576	41.3	24.4	5.4	196		5	135	6	52	0	168	19	16
1894	*76,112	37.8	18.3	2.21	161	14.6	0	21	14	26	2	38	61	10
1895	77,288	40.9	21.8	3.10	181	13.0	1	54	9	59	0	101	14	8
1896	78,482	38.7	20.9	3.73	177	13.2	0	38	59	40	0	63	78	17
1897	79,694	40.0	21.8	4.3	181	14.2	0	87	44	33	0	133	33	20
1898	80,926	40.3	19.9	3.2	172	14.2	0	17	24	30	0	140	34	16
1899	82,176	38.3	20.4	2.9	157	13.0	0	21	8	43	0	114	41	15
1900	83,445	37.1	22.8	3.2	188	13.0	0	59	25	19	0	91	56	19
1901	84,734	36.9	19.7	2.56	175	13.9	0	7	29	34	0	95	17	3
1902	86,043	37.4	19.7	2.60	167	11.4	0	59	52	25	0	50	18	20
1903	87,372	39.1	17.5	1.72	138	13.0	0	1	26	18	0	53	30	23
1904	88,722	37.4	20.9	3.96	174	12.9	3	131	17	13	0	120	49	22
1905	89,843	36.05	17.2	1.88	132	11.7	0	41	16	2	0	66	26	18
1906	91,153	33.9	17.3	1.79	159	11.9	0	10	4	18	0	105	5	22
1907	92,476	34.1	18.3	2.87	155	13.6	0	145	10	12	0	36	52	11
1908	93,812	35.2	16.0	1.32	122	12.3	0	0	29	12	0	59	7	17
1909	95,161	32.0	18.5	3.5	149	12.7	0	188	33	13	0	27	62	12
1910	96,523	32.7	14.5	1.26	121	13.1	1	15	22	10	0	51	16	7
1911	96,870	33.5	18.3	3.03	158	12.7	0	69	13	22	0	143	39	8
1912	98,159	31.9	15.5	1.76	124	14.0	0	62	19	8	0	49	46	19
1913	99,460	32.1	18.9	3.74	155	14.6	0	189	26	4	0	120	18	15
1914	100,775	33.3	17.0	1.62	138	14.1	0	25	5	4	0	98	24	8
1915†	92,240	32.1	19.3	3.1	129	16.1	0	126	12	6	0	78	40	32
1916†	90,000	26.5	16.8	1.95	108	14.9	0	2	30	2	0	64	34	85
1917†	90,600	22.0	16.53	2.26	123	10.60	0	65	20	2	0	37	19	79
1918†	90,600	24.1	21.2	2.45	126	11.4	0	26	24	0	0	48	24	100
1919†	100,805	25.5	15.0	0.82	117	17.5	0	5	9	2	0	35	7	25
1920	104,822	31.8	13.5	1.2	113	16.8	0	56	7	0	0	44	7	13
1921	104,900	29.1	12.6	0.83	103	17.2	0	7	5	0	0	63	24	5
1922	106,400	26.4	13.4	0.93	115	11.5	0	60	4	2	0	28	3	5
1923	107,100	24.4	11.9	0.39	91	12.8	0	0	4	1	0	24	10	8
1924	108,700	24.1	12.0	0.43	103	12.7	0	29	1	2	4	36	11	4

†Estimated civil population

\*Borough extended

The estimate of population as at 30th June, 1924, which is now given, has been based on the adjusted 1921 figures, after allowance for the varying rate of natural increase as evidenced by the births and deaths in the area, and of migration as indicated from other sources of information such as the changes in the numbers on the Parliamentary Register and the migration returns obtained by the Board of Trade. According to such an adjustment the estimated mid-year population of St. Helens for 1924 was 108,700.

The natural increase of population during 1924, i.e., the excess of the number of births over deaths was 1,320 ; the natural increase in 1923 was 1,338.

The distribution and density of the population in the different wards of the Borough at the Census of 1911 and at 1921, and the estimated population of each ward at mid-year 1924, are shown in Table 3.

Table 3.

	Area in Acres	Census 1911.		Census 1921.		Estimated population mid-year 1924.
		Popula- tion	Persons per acre	Popula- tion	Persons per acre	
St. Helens C.B. ....	7284	96551	13.2	102640	14.1	108700
Central .....	94	6336	67.4	6403	68.1	6725
East Sutton .....	1312	11584	8.8	12308	9.4	12929
Hardshaw .....	343	11526	33.6	12048	35.1	12653
North Eccleston.....	235	12252	52.1	12670	53.9	13308
North Windle .....	697	12188	17.4	12269	17.6	13778
Parr .....	1485	12209	8.2	12899	8.7	13548
South Eccleston .....	622	11873	19.0	13618	21.9	14304
South Windle.....	67	8279	123.5	8047	120.1	8452
West Sutton .....	2429	10304	4.2	12378	5.1	13003

**BIRTHS.**—The number of births registered in St. Helens during 1924 was 2,572. 85 births occurring in other districts were transferable to St. Helens and 29 occurring in the borough were transferred to other districts, making a total of 2,628 births belonging to the borough. The birth rate for the year was 24.1 per 1,000 of population, showing a decrease from the figure of 24.4 per 1,000 for the previous year. The rate for England and Wales during 1924 was 18.8 and for the 105 County Boroughs and Great Towns 19.4 per 1,000.

Table 4.

Number of illegitimate births.

Years	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Number of illegitimate births	76	68	70	87	80	84	71	108	84	96	97	92	78	78	112	127	131	136	81	76	70
Proportion per 1,000 population	0.85	0.75	0.76	0.94	0.85	0.88	0.73	1.11	0.85	0.96	0.90	0.79	0.79	1.1	1.2	1.2	1.3	0.7	0.7	0.64	

Table 5.

Number of marriages.

Years	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Number of marriages	576	529	544	632	579	608	637	617	691	730	706	745	568	536	579	924	882	903	612	686	692
Marriage rate per 1,000 population	12.96	11.76	11.93	13.6	12.3	12.7	13.1	12.7	14.09	14.6	14.01	14.5	11.58	10.60	11.4	17.5	16.8	17.2	11.5	12.8	12.7

In St. Helens, the male births numbered 1,348 and the female 1,280 being a proportion of 1,053 male to 1,000 female children born.

Illegitimate births were 2·7% of the total, as compared with 2·9% in the previous year.

Table 7 shows the number of births notified in each ward during the year. Table 6 shows the birth rate in St. Helens since 1873, and Table 4 gives the illegitimate birth rate since 1904.

**Table 7.**

Showing the number of births in the wards notified during 1924, and the birth rates ; also the number of deaths and the death rates in the wards—and figures for England and Wales.

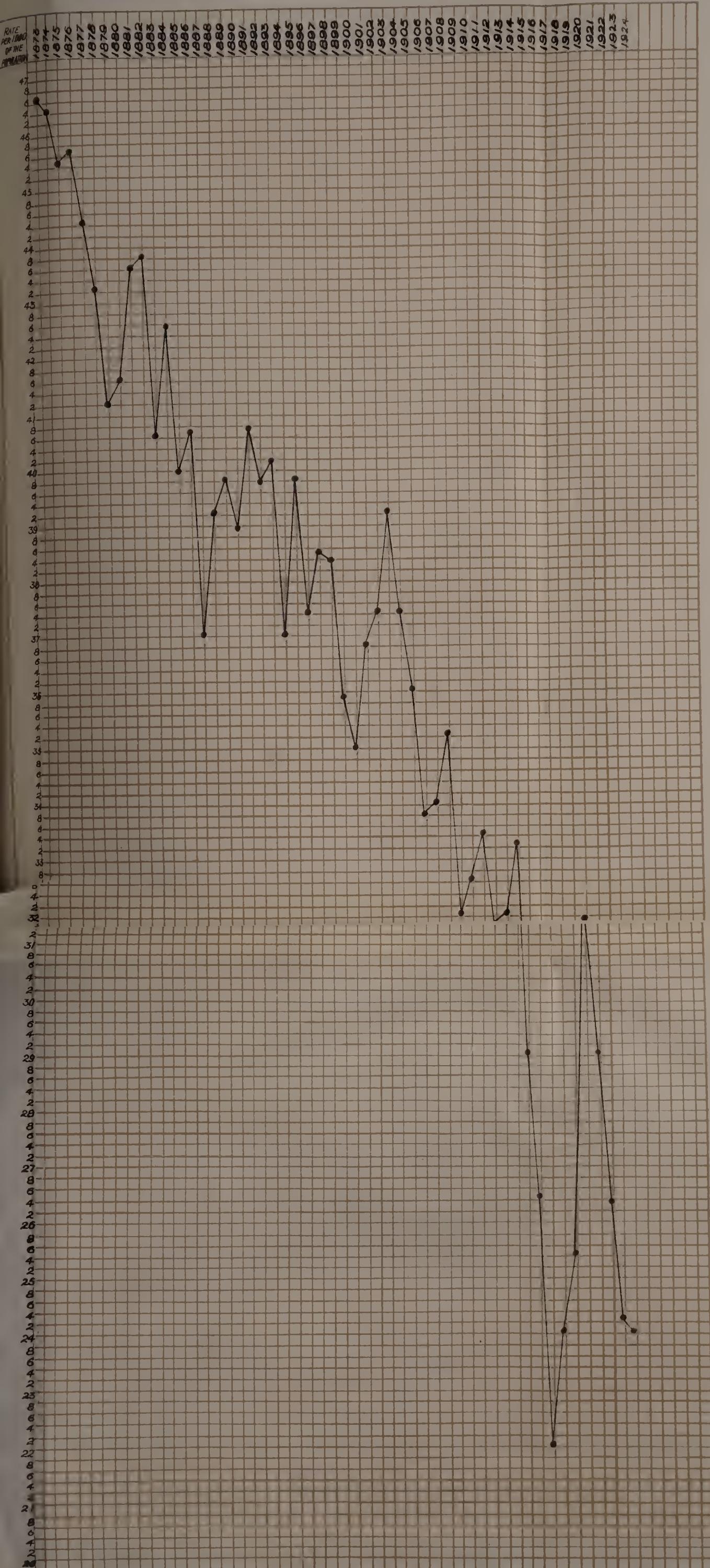
WARD.	Number of births notified.	Birth-rate per 1000 population.	Number of deaths.	Death-rate per 1000 population.
North Eccleston	288	21·6	167	12·5
South Eccleston	308	21·5	149	10·4
Central ...	192	28·5	125	18·5
North Windle	261	18·9	139	10·0
South Windle...	221	26·1	104	12·3
Hardshaw ...	295	23·3	149	11·8
East Sutton ...	305	23·6	142	10·9
West Sutton ...	328	25·2	147	11·3
Parr ... ...	389	28·7	186	13·7
Total ...	2587	23·8	1308	12·0
England & Wales	—	18·8	—	12·2
105 Great Towns	—	19·4	—	12·3

**MARRIAGES.**—The number of marriages during the year has been 692, giving a rate of persons married of 12·7 per thousand of the population. Table 5 shows the rate for past years.

**DEATHS.**—The number of deaths occurring within the borough during the year was 1,231. This total includes 118 deaths in St. Helens of persons usually resident in other areas, but excludes

TABLE 6.

## BIRTH RATE - ST HELENS, 1873-1924.





195 deaths of persons usually resident within the borough which occurred in other areas, the actual number of deaths assignable to St. Helens being 1,308. This gives a net death rate of 12·0 per 1,000 of the population.

A comparison of the death rate in St. Helens with the rate for England and Wales and for the great and smaller towns is shown in the following statement, which also gives the death rate for St. Helens for the previous year :—

England and Wales, 1924	...	...	12·2 per 1,000
105 County Boroughs and Great Towns, including London	...	...	12·3 per 1,000
157 Smaller Towns (1921 adjusted populations 20,000 to 50,000)	...	...	11·2 per 1,000
St. Helens, 1924	...	...	12·0 per 1,000
St. Helens, 1923	...	...	11·9 per 1,000

Table 7 gives the number of births and deaths occurring in the different wards during 1924, and Table 8 shows the death rate in the borough since 1873.

**Seasonal Deaths.**—The following table gives the number of deaths which occurred in St. Helens in each quarter of the year, with the death rate for each quarter, and the death rates for England and Wales for the same periods.

	No. of Deaths.	Death rate per 1,000 of population.			England & Wales
		St. Helens	...	...	
First Quarter	418	15·3	...	...	16·7
Second Quarter	321	11·8	...	...	11·9
Third Quarter	263	9·6	...	...	9·3
Fourth Quarter	306	11·2	...	...	11·1

**Coroners Inquests.**—During the year 111 deaths were reported to the Coroner. In 46 of these the Coroner was able without an inquest to issue a certificate attributing the death to

natural causes. In 65 instances an inquest was held, and in these cases the deaths were recorded as attributable to :—

Colliery Accidents .....	17
Street Accidents .....	12
Accidents in Works .....	1
Drowning .....	7
Poisoning .....	1
Scalds and Burns .....	6
Other Deaths from violence .....	4
Natural Causes .....	13
Other Causes .....	4
	—
	65
	—

**Causes of Death.**—Figures relating to the causes of and ages at death during the year are given in Table 9.

**Zymotic death rate.**—The number of deaths caused by the seven “ principle epidemic diseases ” during 1924 was 74 giving a Zymotic death rate of 0·68 per 1,000 of the population.

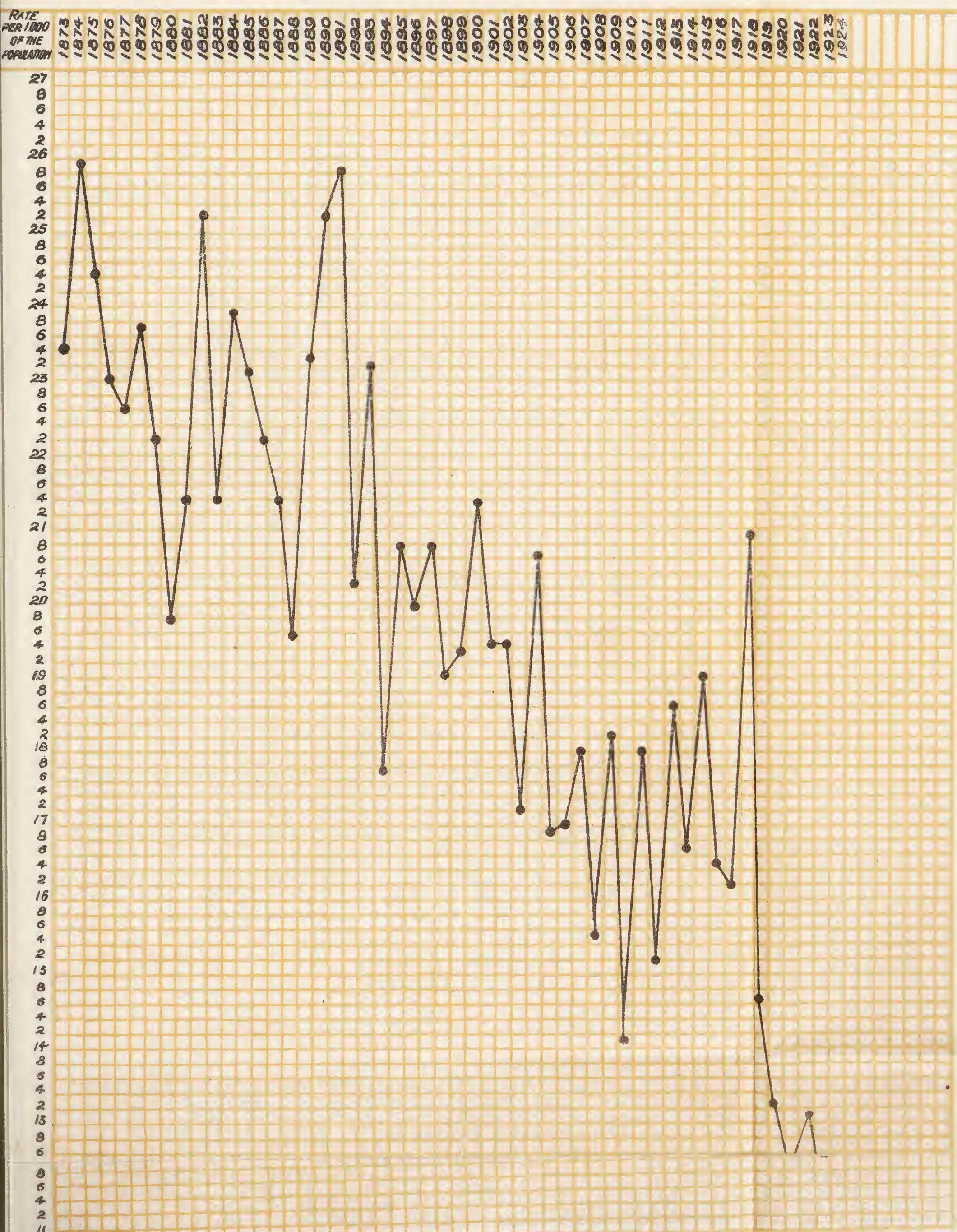
The causes of these deaths were as follows :—

Diarrhœa and enteritis (under 2 years)	23
Whooping Cough .....	11
Measles .....	29
Scarlet Fever .....	1
Diphtheria (including membranous croup)	4
Fever (enteric, typhus, and simple continued fever) .....	6
Small-pox .....	0

Table 2 shows the figures since 1873.

**Deaths from Tuberculosis.**—Tuberculosis was the cause of 145 deaths during the year—that is 11·0% of all deaths belonging to the borough. Of these deaths 118 were attributable to Tuberculosis of the lungs and 27 to other forms of Tuberculosis. The ages at which these deaths occurred are shown in Table 9.

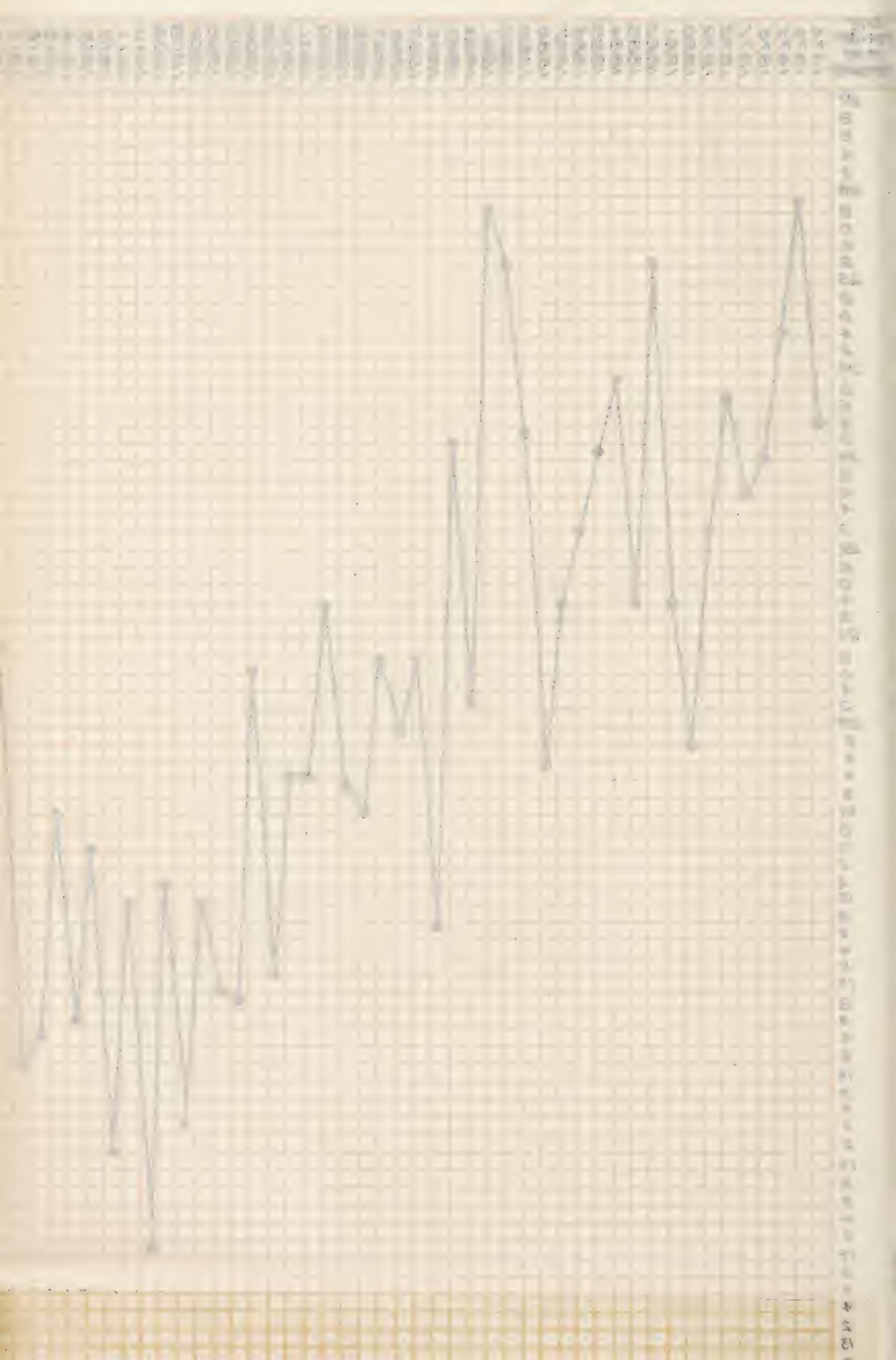
TABLE 8.

DEATH RATE - S<sup>T</sup> HELENS, 1873-1924.

The death rate is not corrected for age & sex distribution.

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Cause of, and age at, death during 1924.

Causes of Death	Sex	Ages	At Ages								
			0-1	1-	2-	5-	15-	25-	45-	65-	75-
All Causes .....	M	673	142	51	34	31	27	78	158	102	50
	F	635	130	37	34	22	35	86	124	101	66
Enteric Fever .....	M	1	—	—	—	—	—	1	—	—	—
	F	1	—	—	—	—	—	1	—	—	—
Small-pox .....	M	—	—	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—
Measles .....	M	16	3	10	2	1	—	—	—	—	—
	F	13	3	4	6	—	—	—	—	—	—
Scarlet Fever .....	M	1	—	—	—	1	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—
Whooping Cough	M	5	3	1	—	1	—	—	—	—	—
	F	6	—	3	3	—	—	—	—	—	—
Diphtheria .....	M	3	—	2	1	—	—	—	—	—	—
	F	1	1	—	—	—	—	—	—	—	—
Influenza .....	M	17	—	1	1	1	1	4	7	1	1
	F	21	5	1	1	1	—	3	4	4	2
Encephalitis Lethargica .....	M	—	—	—	—	—	—	—	—	—	—
	F	3	—	—	1	—	—	2	—	—	—
Meningococcal Meningitis .....	M	1	—	—	—	1	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—
Tuberculosis of respiratory system	M	64	—	—	—	3	6	36	18	1	—
	F	54	—	—	1	5	18	22	7	1	—
Other Tuberculous diseases .....	M	10	1	1	4	3	—	—	1	—	—
	F	17	5	3	4	3	1	—	1	—	—
Cancer, Malignant disease .....	M	40	—	—	—	—	—	?	28	5	4
	F	56	—	—	—	—	1	7	26	18	4
Rheumatic fever .....	M	2	—	—	—	1	—	—	1	—	—
	F	4	—	—	1	1	—	1	1	—	—
Diabetes .....	M	3	—	—	—	—	—	—	2	1	—
	F	6	—	—	—	—	—	1	2	2	1
Cerebral Hæmorrhage, &c.	M	21	—	—	—	1	1	—	8	7	4
	F	22	—	—	—	—	—	—	8	7	7
Heart disease .....	M	53	—	—	—	3	1	4	20	20	5
	F	63	—	—	—	1	2	7	29	17	7
Arterio-sclerosis .....	M	21	—	—	—	—	—	—	6	13	2
	F	11	—	—	—	—	—	—	5	4	2
Bronchitis .....	M	54	5	2	—	—	3	1	19	17	7
	F	36	3	3	—	—	—	4	6	9	11
Pneumonia (all forms) .....	M	103	28	25	14	3	2	10	14	5	2
	F	63	23	13	7	4	3	3	4	3	3
Other respiratory diseases .....	M	4	—	—	1	—	—	—	2	1	—
	F	11	3	—	—	—	—	1	3	2	2
Ulcer of Stomach or duodenum	M	1	—	—	—	—	—	1	—	—	—
	F	4	—	—	—	—	—	—	3	1	—
Diarrhœa, &c. ....	M	16	10	1	2	1	—	—	1	—	—
	F	20	8	4	3	—	—	2	1	2	—
Appendicitis and typhlitis .....	M	2	—	—	—	1	—	—	1	—	—
	F	3	—	—	—	1	1	—	1	—	—
Cirrhosis of Liver .....	M	3	—	—	—	—	—	—	2	1	—
	F	1	—	—	—	—	—	—	1	—	—
Acute and chronic Nephritis .....	M	15	—	1	—	—	1	5	4	—	4
	F	21	—	1	1	2	—	6	4	7	—
Puerperal Sepsis .....	M	—	—	—	—	—	—	—	—	—	—
	F	5	—	—	—	—	3	2	—	—	—
Other Accidents and diseases of pregnancy and parturition .. ....	M	—	—	—	—	—	—	—	—	—	—
	F	12	—	—	—	—	2	9	1	—	—
Congenital debility and malformation	M	71	69	—	1	1	—	—	—	—	—
Premature birth ..	F	49	49	—	—	—	—	—	—	—	—
Suicide .....	M	4	—	—	—	—	1	1	—	2	—
	F	3	—	—	—	—	1	2	—	—	—
Other Deaths from violence .....	M	33	2	1	3	2	6	6	12	1	—
	F	7	—	1	—	1	—	3	1	—	1
Other defined disease .....	M	104	21	5	5	7	5	5	9	27	20
	F	118	30	4	6	3	3	9	15	22	26
Causes ill-defined or unknown .....	M	5	—	1	—	—	—	1	3	—	—
	F	4	—	—	—	—	—	1	1	2	—
		1308	272	88	68	53	62	144	202	202	116

**Other causes of death.**—The following extract from Table 9 shows some of the other principal causes of death :—

Pneumonia (all forms) .....	166
Bronchitis and other Respiratory Diseases .....	105
Heart Disease .....	116
Cerebral Hæmorrhage, etc. .....	43
Cancer and Malignant Disease .....	96
Suicide and other deaths from violence	47

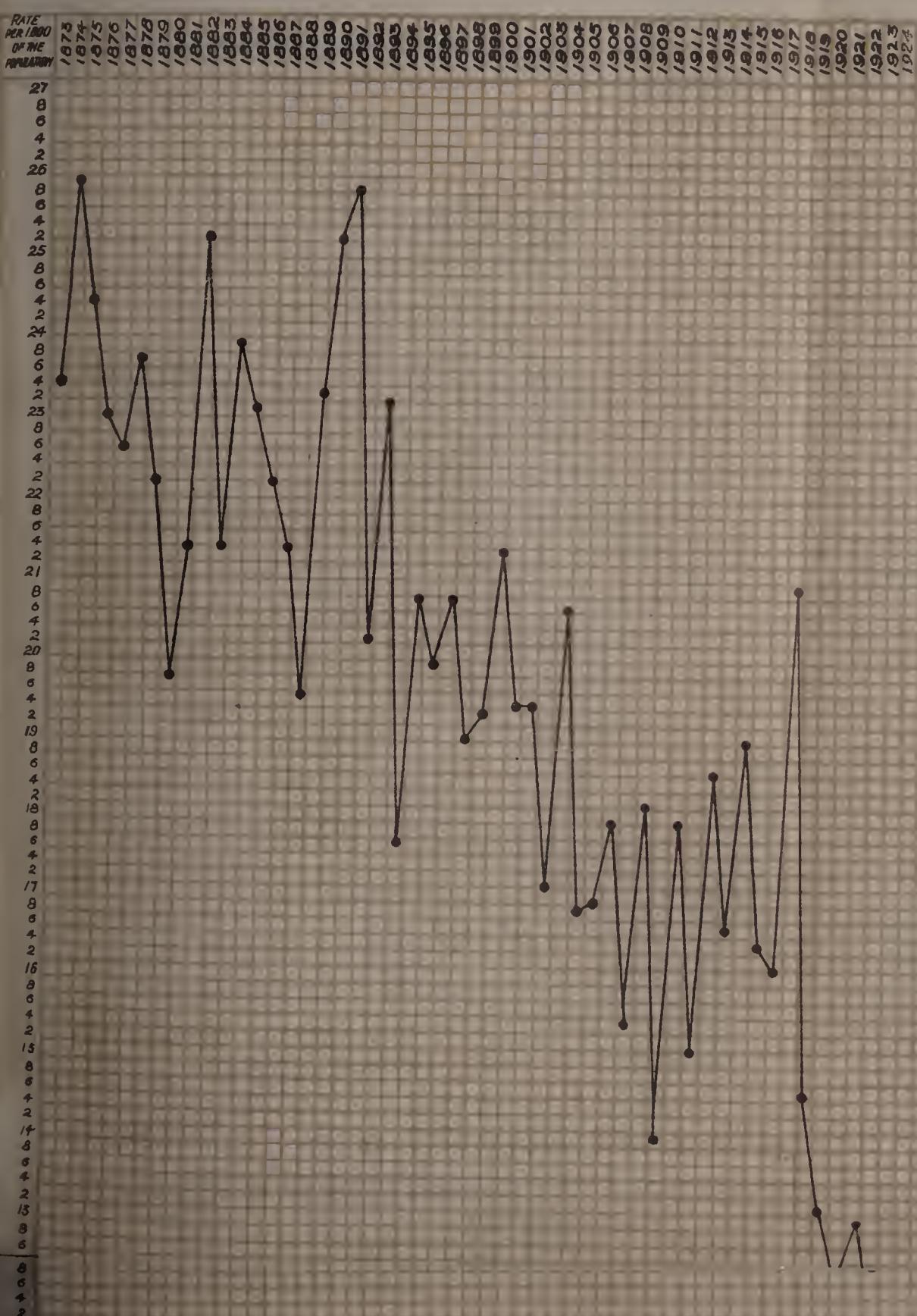
**Infant Mortality.**—During 1924 there were 272 deaths of children under one year of age. This corresponds to an infantile mortality rate of 103.5 per 1,000 births. The infant death rate for 1923 was 91.3.

Of the 272 deaths under 1 year, 261 were legitimate children and 11 illegitimate children, giving a legitimate infant mortality of 102 per 1,000 legitimate births and an illegitimate infant mortality of 157.1 per 1,000 illegitimate births.

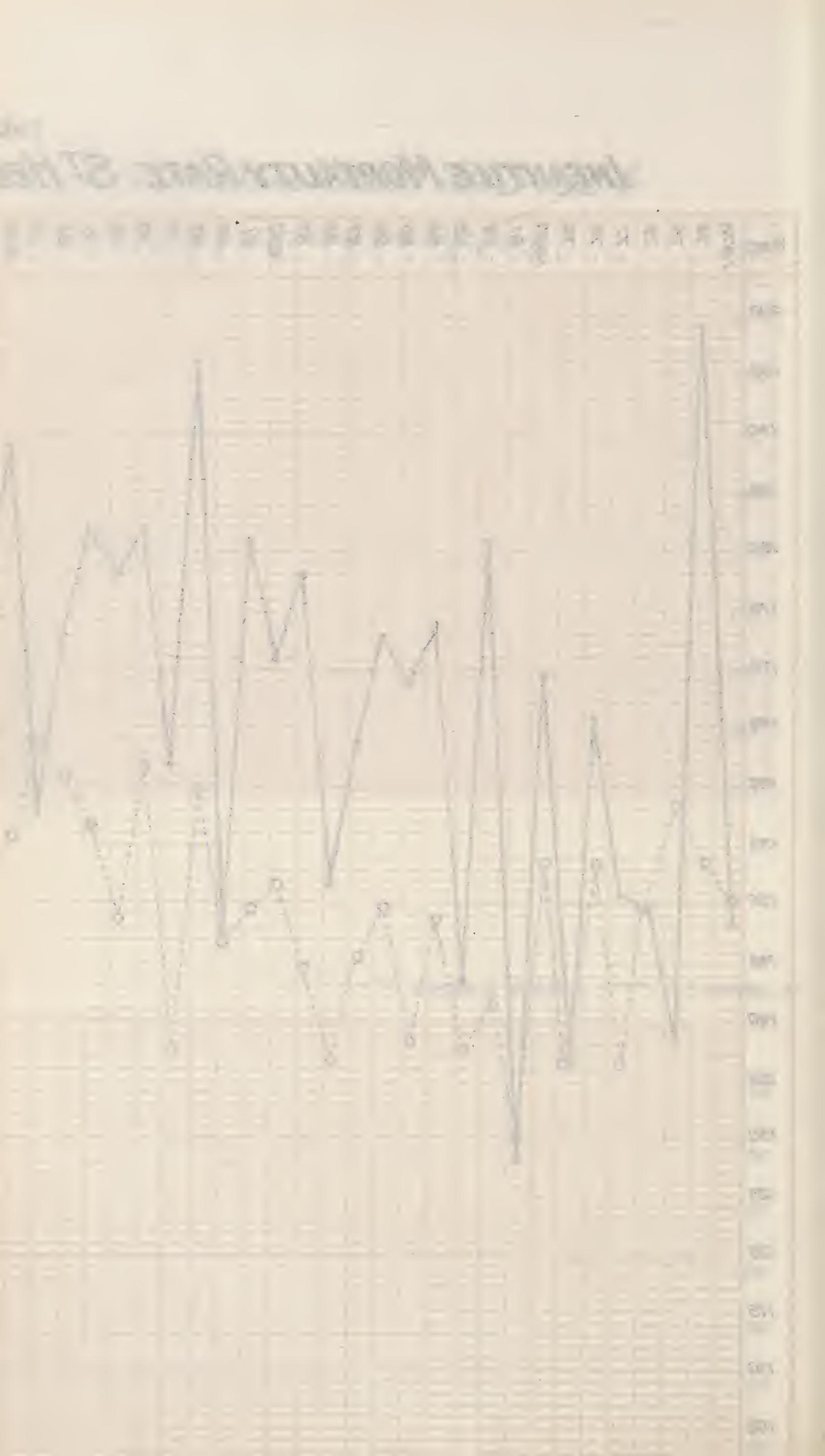
The principal causes of death in all cases was as follows :—

Congenital debility and malformation and premature birth.....	118
Pneumonia .....	51
Bronchitis and other respiratory diseases .....	11
Diarrhoea, etc. .....	18
Whooping Cough .....	3
Tuberculosis .....	6
Measles .....	6
Influenza .....	5
Diphtheria .....	1
Due to Violence .....	2
Other Diseases .....	51

TABLE 8.

DEATH RATE - S<sup>T</sup> HELENS, 1873-1924.

The death rate is not corrected for age & sex distribution.



The following statement reviews the infant death rates under the principal causes in the years 1922, 1923 and 1924.

	Infant Mortality per 1,000 births.	1922	1923	1924
Congenital debility, malformations and premature births .....	44.43	39.77	44.90	
Pneumonia, bronchitis and other respiratory diseases.....	35.19	22.94	23.59	
Measles and Whooping Cough...	4.62	.76	3.43	
Diarrhœa, etc. .....	7.82	4.97	6.85	
Other Diseases .....	23.46	22.94	24.73	

The ages at which these deaths occurred is shown in the following table :—

	Expressed as % of total Infant deaths.	1922	1923	1924
Deaths under 1 day old .....	19.25	14.65	15.07	
Deaths 1 to 7 days old .....	10.86	13.80	13.25	
Deaths 1 to 4 weeks old.....	13.04	14.65	14.34	
Deaths 4 weeks to 3 months old	18.64	11.29	16.54	
Deaths 3 to 6 months old.....	13.97	19.67	15.07	
Deaths 6 to 12 months old.....	24.23	25.94	25.73	

Examination of these tables shows that the increase in the infant mortality rate for 1924 (103.5 per 1,000 births) as compared with the rate for 1923 is mainly due to an increase in the deaths due to congenital defects, measles and diarrhœa. That nearly one half of the infantile mortality should be attributable to congenital defects, shows the very great need for increased antenatal supervision.

Table 10 shows the infant death rate for St. Helens since 1873 and the figures for England and Wales for the same period.

### III.—INFECTIOUS DISEASES.

The following are the infectious diseases compulsorily notifiable to the Medical Officer of Health in St. Helens :—

Small Pox	Plague
Scarlet Fever	Puerperal Fever
Diphtheria and Membranous	Cerebro Spinal Fever
Croup	Acute Poliomyelitis
Enteric Fever	Acute Polio Encephalitis
Typhus Fever	Acute Encephalitis Lethargica
Relapsing Fever	Ophthalmia Neonatorum
Continued Fever	Erysipelas
Trench Fever	Malaria
Dysentry	†Measles and German Measles
*Pneumonia	†Whooping Cough
Cholera	Tuberculosis (all forms)

\**Acute Primary Pneumonia and Acute Influenzal Pneumonia.*

†*Notification by medical practitioner is not required if the disease "has occurred in the same family or institution and been notified within the period of two months immediately preceding the date on which he first becomes aware of a further case."*

Table 11 shows the total number of cases notified during the year, the total number of deaths which occurred, and the numbers admitted to the Corporation Hospitals.

Table 12 gives the age distribution of the cases notified, and table 9 the age distribution of the deaths which occurred. The number of cases notified during each week of the year are shown in Table 13, and the number of notifications each year since 1913 are seen in Table 14.

**SMALL-POX.**—No case of small-pox was notified during the year.

Table 11.

Infectious Diseases, 1924.—Total number of cases notified, number of cases admitted to hospital and the total deaths.

DISEASE.	Notifi-cations received.	Cases admitted to hospital.	Total Deaths.
Small-pox .....	—	—	—
Diphtheria .....	89	87	4
Scarlet Fever .....	163	163	1
Enteric Fever .....	2	2	2
Typhus Fever .....	8	7	4
Puerperal Fever .....	17	17	5
Erysipelas .....	40	4	—
Pneumonia .....	126	1	166
Ophthalmia Neonatorum ..	34	12	1
Polio-Myelitis .....	1	—	—
Encephalitis Lethargica.....	4	4	3
Cerebro Spinal Fever .....	2	1	1
Dysentery .....	—	—	—
Measles .....	3513	72	29
Whooping Cough .....	235	3	11
Tuberculosis :—			
Pulmonary .....	154	} 146	118
Non-Pulmonary .....	75		27

Table 12.

Age distribution of cases of Infectious Diseases notified during 1924.

DISEASE.	Notifications received.	Under 1											
		1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65—	
Typhus Fever	8												
Scarlet Fever	163	6	9	12	12	20	57	34	9	4			
Diphtheria	89	8	7	4	14		20	11	11	12	2		
Pneumonia	126	13	7	9	9	17	2	6	20	14	9	6	
Erysipelas	40	1	1	1			1	3	11	7	14	2	
Puerperal Fever	17							1	15	1			
Ophthalmia													
Neonatorum	34	32	1										
Enteric Fever	2								1				
Polio-myelitis	1												
Encephalitis													
Lethargica	4									2			
Cerebro Spinal								1	1				
Fever	2												
Dysentery													
Whooping Cough	235	36	43	25	45	38	46	1	1				
Measles	3513	206	410	497	612	856	901	23	5	3			
Tuberculosis :—													
(a) Pulmonary													
M	83					1	2	6	1	32	17	23	
F	71				2	1	1	11	6	31	10	9	
(b) Non-pulmonary													
M	40	1	2	2	4	4	12	11	3	2	1	1	
F	35	1	2	5	1	2	9	9	3	1	1	1	

Table 13.

Infectious Diseases.—Number of cases of Infectious Disease notified each week in 1924.

Week ending	Scarlet Fever.	Diphtheria.	Pneumonia.	Erysipelas.	Peurperal Fever.	Ophthalmia Neonatorium.	Enteric Fever.	Polio-myelitis.	Encephalitis Lethargica	Cerebro Spinal Fever	Measles.	Whooping Cough.	Dysentery.	Typhus Fever
Jan. 5	3	2	7	4	4	4	1				4	5	5	
12	1	2	4	1	3	3	1				7	6	6	
19	6	1	1	1	1	1	1				13	7	7	
26	4	1	1	1	1	1	1				14	4	4	
Feb. 2	4	4	1	1	1	1	1				12	6	6	
9	2	3	3	1	1	1	1				16	10	9	
16	2	3	3	1	1	1	1				20	9	9	
23	4	1	1	1	1	1	1				46	5	5	
Mar. 1	4	1	1	1	1	1	1				21	8	8	
8	2	1	1	1	1	1	1				58	2	2	
15	7	5	5	1	1	1	1				48	4	4	
22	2	1	1	1	1	1	1				54	2	2	
29	4	1	1	1	1	1	1				67	8	8	
Apl. 5	1	2	2	1	1	1	1				88	1	1	
12	2	3	3	1	1	1	1				89	2	2	
19	3	1	1	1	1	1	1				177	3	3	
26	4	1	1	1	1	1	1				92	2	2	
May 3	5	5	5	2	2	2	2				199	2	2	
10	2	3	3	1	1	1	1				170	3	3	
17	5	2	2	1	1	1	1				280	2	2	
24	2	3	3	1	1	1	1				219	2	2	
31	2	1	1	1	1	1	1				249	1	1	
June 7	1	1	1	1	1	1	1				240	1	1	
14	1	1	3	1	1	1	1				159	3	3	
21	2	3	3	1	1	1	1				192	1	1	
28	2	1	1	1	1	1	1				135	3	3	
July 5	1	1	1	1	1	1	1				118	2	2	
12	2	1	1	1	1	1	1				67	1	1	
19	4	4	4	1	1	1	1				49	1	1	
26	6	1	3	1	1	1	1				61	1	1	
Aug. 2	5	3	1	1	1	1	1				28	2	2	
9	2	4	4	1	1	1	1				55	3	3	
16	2	1	1	1	1	1	1				45	1	1	
23	4	2	2	1	1	1	1				57	8	8	
30	2	2	2	1	1	1	1				36	3	3	
Sept. 6	8	3	3	1	1	2	1				54	4	4	
13	7	1	1	1	1	1	1				42	4	4	
20	3	2	2	1	1	1	1				33	5	5	
27	5	2	2	1	1	1	1				29	2	2	
Oct. 4	2	2	2	1	1	1	1				25	4	4	
11	2	6	2	2	2	2	1				18	7	7	
18	3	3	2	1	1	1	1				12	4	4	
25	7	2	1	1	1	1	1				10	7	7	
Nov. 1	3	2	2	1	1	1	1				18	5	5	
8	2	1	1	1	1	1	1				15	5	5	
15	6	1	1	1	1	1	1				18	7	7	
22	7	1	1	1	1	1	1				12	4	4	
29	4	1	1	1	1	1	1				10	7	7	
Dec. 6	2	4	3	1	1	1	1				18	4	4	
13	2	3	2	1	1	1	1				14	9	9	
20	8	6	2	2	1	1	1				14	11	11	
27	1	5	2	1	1	1	1				11	5	5	
	163	89	126	40	17	34	2	1	4	2	35	13	235	8

Table 14.

Notifications of Infectious Disease received during the undermentioned years.

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Diphtheria	148	120	289	536	538	756	237	128	51	88	105	89
Scarlet Fever	723	335	501	27	11	568	221	474	232	190	258	163
Enteric Fever	25	17	27	10	10	8	7	13	2	3	2	2
Puerperal Fever	4	—	—	—	—	5	8	17	18	10	4	17
* Pneumonia	—	—	—	—	—	—	—	322	148	77	233	190
Erysipelas	75	109	74	74	71	84	68	72	53	79	42	126
Ophthalmia Neonatorum	7	—	—	—	—	61	40	76	63	42	30	40
Poliomyelitis	—	—	—	—	—	4	2	1	2	1	—	34
Continued Fever	—	—	—	—	—	—	—	—	—	—	—	1
SEncephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—
§ Polio-Encephalitis	—	—	—	—	—	—	—	—	—	—	—	—
§ Dysentery	—	—	—	—	—	—	—	—	—	—	—	—
* Malaria	—	—	—	—	—	—	—	—	—	—	—	—
* Measles	1999	454	2106	4628	196	1106	2960	196	22	21	42	3513
* Whooping Cough	123	207	474	631	814	631	287	576	3437	388	395	235
* Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	2
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	8

\*Only notifiable since 1st March, 1919.

‡Compulsorily notifiable since 1st August, 1915, previous to which date information was only received through the schools.

§Compulsorily notifiable since 1st January, 1919.

The extent of vaccination in St. Helens since 1897 is shown in Table 15.

Table 15.  
Vaccination returns since 1897.

YEAR.	2 Vaccin- ated.	3 Insus- ceptible.	4 Dead.	5 Con- Obje't'r	6 Post- poned.	7 Removed	8 Un- accounted	Percentage not Vaccinated including Columns 5, 6, 7, 8
*1897	2,680	11	390	4	7	110	7	4·9
*1898	2,696	15	383	14	1	103	15	4·6
*1899	2,625	32	346	10	3	94	16	4·8
*1900	2,654	10	367	5	12	82	18	4·2
1901	2,639	4	391	11	29	59	24	4·4
1902	2,788	4	342	7	12	58	34	3·8
1903	2,977	8	325	2	6	62	11	2·6
1904	2,940	7	341	10	10	42	25	2·8
1905	2,923	3	270	6	10	29	18	2·1
1906	2,733	5	318	8	12	39	22	2·8
1907	2,810	9	257	24	19	49	17	3·7
1908	2,858	18	248	70	11	35	20	4·5
1909	2,720	8	241	81	9	33	11	4·7
1910	2,731	3	255	131	3	23	19	6·0
1911	2,750	9	277	148	5	26	14	6·5
1912	2,646	4	249	216	12	23	4	8·7
1913	2,499	6	296	339	14	27	9	13·0
1914	2,654	11	281	348	6	22	24	13·0
1915	2,352	2	189	367	9	34	15	15·3
1916	2,056	4	186	287	3	39	24	14·6
1917	1,702	4	158	267	1	6	45	15·7
1918	1,861	0	201	281	8	40	19	14·5
1919	1,999	2	189	385	4	25	18	17·8
1920	2,452	1	223	553	12	18	23	19·8
1921	2,234	2	179	530	6	29	17	20·6
1922	2,143	7	185	411	5	27	23	17·8
1923	2,144	10	139	261	4	10	22	12·17†

\*The above Returns are for St. Helens Sub-District of the Prescot Union, which does not include quite the whole of the Borough.

†Of the 12.17 per cent unvaccinated 10.69 are conscientious objectors.

**TYPHUS FEVER.**—During August and September an unusual outbreak of Typhus Fever occurred, occasioning eight cases with four deaths. A special report submitted to the Health Committee at the end of the outbreak is printed as an Appendix. It is very satisfactory to note that since the date of that report no further cases have occurred.

**SCARLET FEVER.**—163 cases occurred during the year with one death. The number of cases during the previous year was 258.

**DIPHTHERIA.**—89 cases were notified and 4 deaths occurred during the year. Diphtheria Antitoxin for the injection of patients at home is available for medical practitioners at the office of the Medical Officer of Health and at the Borough Isolation Hospital.

**ENTERIC FEVER.**—Two cases were notified during the year, and two deaths were stated to be due to the disease. In both of the cases notified the infection was contracted outside St. Helens—one case had been admitted from outside the borough to one of the general hospitals under a mistaken diagnosis, and the other took ill 4 days after coming to St. Helens.

**MEASLES.**—3,513 cases were notified during the year and 29 deaths occurred. A pavillion at the Isolation Hospital is set aside for serious cases and home nursing can be provided by utilising the services of nurses at the school clinic.

**WHOOPING COUGH.**—235 cases were notified with 11 deaths. During the previous year there were 895 cases notified.

**PUERPERAL FEVER.**—17 cases were notified during the year and 5 deaths occurred.

**OPHTHALMIA NEONATORUM.**—34 cases were notified during the year. Of these 22 were treated at home, and 12 were admitted to Peasley Cross Isolation Hospital. As the result of an enquiry at the end of the year it was found that 33 recovered with unimpaired vision, and one died, aged 15 days, of "congenital debility."

**CEREBRO-SPINAL MENINGITIS.**—Two cases were notified during the year and proved fatal.

**ENCEPHALITIS LETHARGICA.**—Four cases were notified during the year and three deaths were attributed to this cause.

**BOROUGH ISOLATION HOSPITAL.**—This hospital is situated at Peasley Cross and has accommodation for about 100 patients. There is no resident medical officer. Cases are also admitted to this hospital from the Urban District of Haydock. At the beginning of the year there were 38 patients in hospital. New cases admitted during the year numbered 606 making a total number of 644 patients dealt with. At the end of the year there were 36 patients remaining. The highest number of patients under treatment at any one time was 79 and the lowest 32.

The details of the admission and discharges are shown in Table 16.

Table 16.  
Peasley Cross Isolation Hospital  
Record of cases treated during 1924.

DISEASE.	In hospital Jan. 1st, 1924.	Ad-mitted.	Dis-charged.	Died.	In hospital Jan. 1st, 1925
Typhoid Fever.....	—	2	1	1	—
Scarlet Fever .....	26	185	193	2	16
Diphtheria .....	5	54	53	3	3
Puerperal Fever .....	—	16	10	4	2
Venereal Disease .....	—	10	10	—	—
Measles .....	—	80	71	9	—
Typhus Fever .....	—	7	3	4	—
Other Diseases .....	7	229	199	23	14
Mothers with sick babies	—	4	4	—	—
Babies with sick mothers	—	19	18	—	1
 Total .....	38	606	562	46	36

**AMBULANCE PROVISION.**—Two motor ambulances are kept at the Isolation Hospital to convey patients to either of the Corporation hospitals. During the year the total distance travelled was 15,120 miles.

**DISINFECTION.**—Disinfection of premises by means of the formalin spray is carried out by the disinfectors from the Medical Officer's Department, and bedding and articles of clothing etc. are disinfected by steam or other appropriate method at the Borough Isolation Hospital. During the year the disinfectors dealt with 2,834 premises and the number of articles disinfected at the Isolation Hospital was as follows :—

		Articles
Hospital Clothing and Bedding	...	2125
Blankets, Sheets and Rugs	...	3749
Pillows and Cushions	...	1935
Mattresses, etc.	...	587
Other Articles of Clothing	...	721
Library Books	...	52
Other Articles	...	496

#### IV.—TUBERCULOSIS.

The arrangements for dealing with Tuberculosis in St. Helens include :—

- 1.—Notification by general practitioners, school medical inspectors, medical officers of institutions, etc., in accordance with Public Health (Tuberculosis) Regulations, 1912.
- 2.—Visitation by health visitors of all cases notified.
- 3.—Provision of a Tuberculosis Dispensary where consultations are carried out and treatment supplied when necessary.

- 4.—Provision of sanatorium treatment at Eccleston Hall Sanatorium (70 beds).
- 5.—Reservation of four beds at the Liverpool Sanatorium, Dela-mere, for special cases.
- 6.—Disinfection of premises, bedding, etc., as and when required.
- 7.—Under St. Helens Corporation Act, 1911, power is given for the compulsory removal to suitable hospital of cases in a highly infectious state where home conditions are such that proper precautions connot be, or are not being, taken to prevent the spread of infection.
- 8.—Provision of extra nourishment in suitable cases.

**NOTIFICATION.**—During the year 154 new cases of pulmonary tuberculosis were notified and 118 deaths occurred from this form.

During the same period 75 new cases of other forms of tuberculosis were notified and 27 deaths occurred.

Table 17 shows the age and sex distribution of all cases notified during 1924.

Of the 154 new cases of pulmonary tuberculosis notified during 1924, 62 died during the year, and the average duration of life after notification in these cases was only 61·1 days. In 14 cases death occurred within one week of notification. Furthermore, of the 118 deaths from pulmonary tuberculosis registered during 1924, 16 were not previously notified as suffering from the disease.

It is to be regretted that notwithstanding what was said in my report last year, attention has again to be drawn to the late notification of cases of Tuberculosis. That nearly half of the cases of pulmonary tuberculosis notified during the year, died during the year, and that of those dying the average duration of life after notification should be only 61 days, means that a great many of these cases are only notified in the last stage of the disease. Such procedure not only deprives the patient of the possible benefit of

Table 17. Public Health (Tuberculosis) Regulations, 1912.

Summary of Notifications received during the period from the 31st December, 1923, to the 29th December, 1924.  
in the County Borough of St. Helens, Lancs.

Sanatorium treatment but means unchecked spread of the infection over long periods. It cannot be too strongly emphasised that the early stage of the disease is the curable stage and the more advanced the disease becomes, the less likelihood is there of complete cure. It must also be remembered that the patient is not the only person concerned. By the time a patient reaches the late stages of the disease he or she must have been scattering tubercle bacilli for months if not years, not only amongst their own household, but at work, in public places, on the sheets, etc., and these scattered bacilli are all possible sources of infection for healthy members of the community. Early notification is therefore a necessity both in the interest of the patient and of the general public.

Table 18 shows the number of new cases notified and the deaths which have occurred each year during the past 11 years.

At the end of 1924 there remained on the Tuberculosis Register in St. Helens 562 cases of pulmonary and 363 cases of non-pulmonary tuberculosis.

**SURGICAL TUBERCULOSIS.**—Though it has not yet been possible to put into operation in St. Helens a complete scheme for the treatment of Surgical Tuberculosis, it is hoped shortly to complete, in conjunction with the Maternity and Child Welfare and School Medical Services, an orthopædic scheme which will prevent much of the tubercular crippling at present to be found.

During 1924, 42 patients suffering principally from Tubercular glands and from Lupus made 627 attendances at the Tuberculosis Dispensary for X-Ray treatment, and 40 patients suffering from the following types of the disease received treatment at various residential institutions during the year : Bones and Joints, 21 ; Abdominal, 11 ; Glandular, 4 ; Other Organs, 4.

**HEALTH VISITING OF TUBERCULAR PATIENTS.**—Every case notified is visited by one of the health visitors who advises regarding the means to be taken to prevent the spread of infection and reports to the medical officer cases requiring isolation or sanatorium treatment. Further visits are paid to the cases at intervals during the year. The health visitor also arranges for the disinfection of premises, bedding, etc., as required.

Table 18.

Tuberculosis.—Number of new cases notified and number of deaths each year. 1912 to 1924.

Year.		Pulmonary.	Other forms.	Death Rate per 1000 population.
1912	Cases notified .....	130	—	
	Deaths .....	91	65	1.5
1913	Cases notified .....	253	164	
	Deaths .....	100	90	1.9
1914	Cases notified .....	207	116	
	Deaths .....	113	65	1.7
1915	Cases notified .....	203	126	
	Deaths .....	99	56	1.5
1916	Cases notified .....	189	137	
	Deaths .....	127	41	1.7
1917	Cases notified .....	198	62	
	Deaths .....	121	42	1.6
1918	Cases notified .....	144	40	
	Deaths .....	107	34	1.4
1919	Cases notified .....	150	56	
	Deaths .....	99	31	1.2
1920	Cases notified .....	221	65	
	Deaths .....	82	37	1.1
1921	Cases notified .....	179	63	
	Deaths .....	102	32	1.2
1922	Cases notified .....	167	58	
	Deaths .....	78	39	1.1
1923	Cases notified .....	141	45	
	Deaths .....	85	27	1.0
1924	Cases notified .....	154	75	
	Deaths .....	118	27	1.3

During the year health visitors paid 4,935 visits to cases of tuberculosis in the borough, and in 333 instances disinfection of premises and bedding was carried out.

**TUBERCULOSIS DISPENSARY.**—During 1924, 458 persons attended the Tuberculosis Dispensary and made a total of 2,967 attendances. Of this number 185 were cases visiting the dispensary for the first time, and of these 119 or 64.3% were found to be suffering from tuberculosis in one or other form. The remaining 66 cases were examined as contacts or as doubtful cases. Of the total number of cases attending 87 were referred by the Ministry of Pensions, 78 being old cases attending for treatment and 9 new cases referred for report or treatment, or both.

The average weekly attendance at the dispensary was 57.

The classification of the new cases attending the dispensary is shown in Table 19, and Table 20 shows number of attendances of old and new cases.

**Table 19.**

Age and sex classification of new cases of tuberculosis attending the dispensary.

	Pulmonary.		Other Forms.		Suspicious cases.		Totals.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1—5....	—	—	3	2	3	2	6	4
5—15....	5	9	14	17	16	21	35	47
15—25....	10	13	2	2	5	5	17	20
25—35....	11	6	—	—	4	2	15	8
35—45....	7	3	—	1	3	2	10	6
45—55....	8	1	1	—	1	—	10	1
55—65....	3	—	1	—	1	1	5	1
65 upwards	—	—	—	—	—	—	—	—
Totals ....	44	32	21	22	33	33	98	87

**Table 20.**

Number of attendances at the tuberculosis dispensary during 1924.

	Pulmonary.	Other forms.	Suspicious cases.
Number of old cases attending on 31st Dec., 1923	184	64	25
Number of new cases during the year 1924.....	76	43	66
Number of attendances during the year .....	1687	1063	217

**INSTITUTIONAL TREATMENT.**—At the Corporation Sanatorium, Eccleston Hall, 37 male and 33 female beds are provided and kept fully occupied. The Council also reserve four beds at the Liverpool Sanatorium, Delamere.

The number of St. Helens patients who received institutional treatment during the year was as follows :—

At Eccleston Hall Sanatorium .....	202
„ The Westmorland Sanatorium .....	4
„ Delamere Sanatorium .....	8
„ Burrow Hill Colony, Frimley .....	6
„ Leasowe Open Air Hospital .....	5
„ Pilkington's Special Hospital .....	1
„ The Children's Hospital, Myrtle Street, Liverpool .....	1
„ Northfield Hospital Training Colony, Birmingham .....	1
„ Preston Hall, Aylesford .....	1
<hr/>	
Total.....	229
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Table 21 shows the admissions and discharges at Eccleston Hall Sanatorium during the year. The average duration of stay was 102 days.

## V.—VENEREAL DISEASES.

Treatment is carried out by the staff of the Medical Officer's Department, female cases being dealt with by the female Assistant Medical Officer.

Accommodation for 6 male and 6 female patients is provided at the Borough Isolation Hospital for persons requiring inpatient treatment.

**Table 21.**  
The admissions and discharges at Eccleston Hall Sanatorium.

Remaining in on Dec. 31st, 1923.		Admitted during 1924.		Discharged during 1924.		Died during 1924.		Left without permission.		Dismissed for unsatisfactory behaviour.		Remaining in on Dec. 31st, 1924.	
		Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
<b>A</b> (Early cases)		3 1C	9 4C	15 3C	3 3C	12 3C	—	—	—	—	—	6 2C	—
<b>B.</b> (Intermediate cases).		18	6 2C	22 3C	11 8C	26 3C	6 6C	1 1C	4 —	1C	—	10 —	5 1C
<b>C.</b> (Late cases)		11 2C	5 6C	29 7C	14 8C	13 1C	1 3C	14 3C	11 5C	3 1C	1 3C	9 3C	6 3C
<b>D.</b> (Observation cases).		5	5 2C	15 —	9 —	13 —	10 2C	—	—	1 —	1 —	4 —	3 —
<b>E.</b> (Non Pulmonary Cases)		—	—	—	—	10 —	15 —	3 —	7 —	—	—	6 —	7 —
<b>TOTALS</b>		34 3C	19 11C	85 14C	64 19C	58 7C	36 14C	15 3C	15 6C	8 1C	5 6C	35 1C	27 4C

c—Patients sent by Lancashire County Council.

During the year 137 male and 56 female patients made a total of 2,372 attendances at the Treatment Centre and 10 patients received in-patient treatment at the Isolation Hospital.

Bacteriological examinations are carried out at the Liverpool University.

A return relating to all persons who were treated in St. Helens during the year is given in Table 22.

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#### **VI.—SUMMARY (for reference) of Nursing Arrangements, Hospitals, and other Institutions available for the district.**

**HOME NURSING.**—The St. Helens and District Nursing Association, supported by voluntary contributions, maintain a superintendent, assistant superintendent and ten nurses to attend non-infectious cases in their own homes. 1,291 new cases and 139 old cases were nursed during the year, the total number of visits amounting to 42,712.

For infectious diseases e.g. Measles and Whooping Cough, the services of one or more trained nurses from the staff of the Medical Officer's Department are available.

**MIDWIVES.**—No district midwives are employed or subsidised by the public health authority. In exceptional cases however, where the parent has been unable to do so by reason of poverty, the Council have paid the midwife's fee.

### Table 22—Venereal Disease.

Annual return relating to persons residing in the County Borough of St. Helens who were treated at the Treatment Centre at Claughton Street during the year ending on the 31st December, 1924.

1	Number of persons dealt with at or in connection with the out-patient Clinic for the first time and found to be :—		
		Males	Females
	Suffering from syphilis .....	19	15
	"    "    soft chancre .....	—	—
	"    "    gonorrhœa .....	30	9
	Not suffering from venereal disease .....	19	9
	TOTAL ..	60	29
2	Number of persons discharged from the out-patient Clinic after completion of treatment for :—		
	Syphilis.....	3	—
	Soft chancre.....	—	—
	Gonorrhœa .....	22	—
	TOTAL ..	25	—
3	Number of persons who ceased to attend the out-patient Clinic without completing treatment and who were suffering from :—		
	Syphilis .....	16	18
	Soft chancre .....	—	—
	Gonorrhœa .....	15	5
	TOTAL ..	31	23
4	Total attendances of all persons at the out-patient Clinic who were :—		
	Suffering from syphilis .....	526	168
	"    "    soft chancre .....	—	—
	"    "    gonorrhœa .....	1087	166
	Not found to be suffering from venereal disease..	86	39
	TOTAL ..	1699	373
5	Aggregate number of "In-patient days" of treatment given to persons suffering from venereal disease.....	33	154

#### IN-PATIENTS

7	Number of doses of Salvarsan substitutes given :—		
		Doses.	
	to (1) St. Helens patients .....	9	
	(2) Lancashire County patients .....	—	
	(3) Others .....	—	

#### OUT-PATIENTS

to (1) St. Helens patients .....	353
(2) Lancashire County patients.....	46
(3) Others.....	—

#### 8. Examinations of Pathological material :—

##### (a) Specimens from persons attending at the Treatment Centre which were examined at this Centre :—

For detection of spirochetes .....	69
"    "    "    gonococci .....	
"    "    "    Wassermann reaction .....	

Others .....

##### (b) Specimens from persons attending at the Treatment Centre which were sent for examination to an independent laboratory :—

For detection of spirochetes .....	200
"    "    "    gonococci .....	
"    "    "    Wassermann reaction .....	

Others .....

**CLINICS AND TREATMENT CENTRES.**—The following clinics and treatment centres are provided by the Corporation :

(1).—**Maternity and Child Welfare Centres**—combined clinics for expectant and nursing mothers and for children under 5 years of age.

- (a) Town Hall Clinic ... Open Monday, Wednesday and Thursday, 2 to 4 p.m. For Hardshaw, Thatto Heath, Derbyshire Hill and Parr Districts.
- (b) Albion Street Clinic ... Open Monday, Tuesday and Wednesday, 2 to 4 p.m. For North & South Eccleston, North and South Windle, and Central Districts.
- (c) Elizabeth Street Clinic Open Thursday, 2 to 4 p.m. For Peasley Cross and Sutton Districts.
- (d) Marshalls Cross Clinic Open Tuesday, 2 to 4 p.m. For Marshalls Cross, Sutton Manor and Clock Face Districts.
- (e) The Dispensary, Claughton Street ... For Ante-natal cases only. Friday 2 to 4 p.m.

(2).—**School Clinic, Claughton Street.**—For treatment of minor ailments, throat and nose defects, eyes, dental defects and the X-ray treatment of ringworm. Minor ailments are treated daily 9 a.m. to 5 p.m. Other defects on special days. A scale of income has been drawn up for recovery of cost of treatment in non-necessitous cases.

(3).—**Tuberculosis Dispensary, Claughton Street.**—Open Monday and Friday from 10 to 11-30 a.m., and on Wednesday evening from 5-30 to 7 p.m.

(4).—**Venereal Diseases Centre, Claughton Street.**—Open for males on Monday, 6 to 7 p.m., and for females, Wednesday, 7 to 8 p.m. The centre is also open daily from 9 a.m. to 5 p.m., for irrigation, advice and prophylactic treatment.

### HOSPITALS Provided by the Council :—

- (1)—Borough Isolation Hospital, Peasley Cross. For Infectious Diseases (other than Small-pox). Beds, 100.
- (2) Eccleston Hall Sanatorium for cases of Tuberculosis. Beds, 70.
- (3)—Old Whint Hospital, Haydock. For maternity cases and pre- and post-natal complications. Also for debilitated and ailing infants. Beds : Maternity, 10 ; Children, 20.

**Subsidised by the Council.**—Sankey Small-pox Hospital, for cases of Small-pox. St. Helens pays an annual retaining fee to the Warrington Corporation and the costs of treatment of any patient admitted from St. Helens.

**Other Hospitals.**—*The St. Helens Hospital.*—Supported partly by subscribers and partly by contributions. For all medical and surgical non-infectious cases. Accommodation about 115 beds. Out-patient department for Ophthalmic and Gynaecological cases.

*The Providence Free Hospital.*—Accommodation for about 100 patients (general medical and surgical cases).

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### VII.—MATERNITY AND CHILD WELFARE.

The various activities under the Maternity and Child Welfare Schemes of the Council comprise the following :—

- 1.—Notification of Births under the Notification of Births Acts, 1907 and 1915.
- 2.—Inspection and Supervision of Midwives.
- 3.—Health Visiting.
- 4.—Provision of Ante-natal and Maternity and Child Welfare Clinics for consultation and advice.

- 5.—Provision of hospital accommodation for maternity cases at Old Whint Hospital.
- 6.—Provision of hospital accommodation for debilitated and ailing children at Old Whint Hospital.
- 7.—Provision of hospital accommodation at Peasley Cross Isolation Hospital for cases of puerperal fever and septic confinement cases, and for ophthalmia neonatorum.
- 8.—Provision of home nursing for cases of measles in children under 5 years of age.
- 9.—Supply of milk at less than cost price to infants, and nursing and expectant mothers.
- 10.—Provision of maternity bags for necessitous cases.
- 11.—Provision of treatment for minor ailments and dental defects in necessitous cases.

During the year 2,628 births were registered and the death of 272 infants under one year of age occurred, giving an infantile mortality of 103.5 per thousand births. Table 10 shows the infant death rate for St. Helens since 1873 and the figures for England and Wales for the same period.

**NOTIFICATION OF BIRTHS.**—Under the Notification of Births Acts 2,587 live births and 101 still births were notified during the year. Of these 2,413 were notified by midwives and 304 by doctors and parents.

**INSPECTION AND SUPERVISION OF MIDWIVES.**—There were 43 midwives on the register as practising in the Borough during the year.

The qualifications of these midwives were as follows:—

Holding the certificate of the Central Midwives Board	...	...	...	...	...	30
Having other recognised certificates	...	...	...	...	...	9
Untrained	...	...	...	...	...	4

Inspections of midwives were carried out on 60 occasions by medical officers, and the health visitors paid 63 routine and 166 special visits for purposes of inspection and supervision. In 14 instances it was considered necessary to suspend a midwife from practice for 24 hours after contact with an infectious case, to allow of the disinfection of herself and appliances.

During the year the midwives found it necessary to call medical practitioners to their assistance on 757 occasions. The reasons for sending and the number of occasions in which medical assistance was required were as follows :—

(a) For abortions and premature labours ...	...	59
(b) For ante-natal illnesses...	...	66
(c) For difficult confinement	...	376
(d) For suturing the perinæum, expelling the placenta, excessive hæmorrhage, etc.	...	103
(e) For post-natal illnesses...	...	47
(f) For the child ...	...	106

Under the Midwives' Act, 1918, the Local Supervising Authority is responsible for the payment of the fees of doctors called in by the midwives and have power to recover from the patient the whole or part of fees so paid. During the financial year 1924—25, £952/7/6 was paid to medical practitioners for this service, and £560/7/10 recovered from the patients.

**HEALTH VISITING.** The following statement shows the visits paid by health visitors during the year :—

To expectant mothers—first visits	...	930
To expectant mothers—subsequent visits	...	1464
To infants under 1 year—first visits	...	2660
To infants under 1 year—subsequent visits	...	15328
To children 1—5 years old	...	24715
Total Visits		45097

## MATERNITY AND CHILD WELFARE CLINICS.—

Maternity and Child Welfare Centres are established at the Town Hall (open 3 days a week), Albion Street (open 3 days a week), Marshalls Cross (open 1 day a week), and Elizabeth Street (open 1 day a week). Further centres are required in the Thatto Heath and Sutton Manor districts.

At the centres combined clinics for expectant and nursing mothers and for children under 5 years of age are held, and the clinics are so arranged that the mothers may come on those days on which the health visitor for their own district is in attendance. The medical work is carried out by the assistant medical officers, and short 'talks to mothers,' and demonstrations are given by the medical officers, dentist and health visitors.

In January 1924 a special ante-natal clinic was opened at the dispensary in Claughton Street for pregnant women who require special examinations or supervision. To this clinic are referred all cases where there is reason to suspect abnormality or where the history of previous pregnancies point to the need of careful supervision. During the year 137 mothers made 316 attendances at this clinic. It is hoped in the near future to extend these special clinics so that more facilities may be available for the care of the ante-natal mother.

The attendances at the centres during 1924 were:—

Number of expectant mothers attending—first visits...	234
,,      ,,      ,,      —subsequent visits...	412
Number of mothers attending—first visits ... ...	1979
,,      ,,      ,,      —subsequent visits ... ...	6648
Number of children attending—first visits ... ...	2519
,,      ,,      ,,      —subsequent visits ... ...	7396
Number of attendances of expectant mothers ... ...	1437
,,      ,,      ,,      mothers ... ...	20698
,,      ,,      ,,      children ... ...	22573
<hr/>	
Total number of attendances ...	63896

**MATERNITY HOSPITAL.**—The old Small-pox Hospital at Old Whint continues to be used for maternity cases and for weakly and ailing infants. Despite its many disadvantages it continues to do good and valuable work. During the year 103 antenatal and 21 post-natal cases were admitted and 64 confinements were conducted. The average duration of stay was 22 days.

Table 23 gives a general summary of the maternity cases dealt with, and Table 24 shows the complications requiring medical assistance.

**CHILDREN'S HOSPITAL ACCOMMODATION.**—At Old Whint Hospital there is a children's ward to which are admitted weak, debilitated and ailing children. During the year there were 119 infants dealt with, of whom 75 were discharged in good health, 21 were discharged improved and 2 cases returned home before any improvement could be effected. 21 children died in the hospital. The general summary of the cases dealt with is shown in Table 25, whilst Table 26 shows the reasons for admission and Table 27 the causes of the deaths that occurred.

**PUERPERAL FEVER.**—17 cases of Puerperal Fever were notified during the year and 5 deaths occurred, giving a death rate of 1.90 per thousand births. Cases of puerperal fever and septic puerperal conditions are admitted into Peasley Cross Isolation Hospital.

**MEASLES.**—A pavilion at the Isolation Hospital is available for serious cases, and home nursing can be provided when required.

Table 23.  
General Summary of Cases in Old Whint Maternity Hospital, 1924

Number of cases admitted.		Number delivered by Doctor.	Number delivered by Midwives.	Number notified as Puerperal Sepsis.	Number in which Temperature rose above 100.4.	Number of cases of Ophthalmia Neonatorum	Number of children not entirely breast fed in Institution with reasons.	Number of Maternal Deaths with causes.	Prematurity		
Ante Natal	Post Natal								Macerated Foetus	Still-born	Prematurity and Cleft Palate
103	21								1	2	7
124		22	5	59	Nil.	1	2	Nil.	1	2	1
									1	1	1

**Table 24.**  
Old Whint Maternity Hospital.

Table showing number of cases in which medical assistance was sought by the resident midwife during 1924 with reasons for requiring assistance.

ANTE NATAL.		DURING LABOUR.						AFTER LABOUR			FOR INFANT	
Eclampsia	Haematemesis	Placenta Prævia	Eclampsia	Adherent Placenta	Face Presentation	Obstructed Labour	Complicated Breech	Rigid Perineum.	Eclampsia	Nephritis	Torn Perineum	Prematurity
2	2	1	4	1	1	1	1	1	3	1	1	1
3					10					5		2

**Table 25.**  
General summary of cases in Hospital for Children at Old Whint.

NUMBER OF ADMISSIONS	AVERAGE DURATION OF STAY IN DAYS.	NUMBER OF CASES DISCHARGED.				NUMBER OF CASES OF INFECTIOUS DISEASE.			
		No Improvement.	Improved.	In Good Health.	Discharged on Account of Illness.	Measles.	Whooping Cough.	Epidemic Diarrhoea.	Chicken Pox.
119	33½	2	21	75	Nil.	16	Nil.	Nil.	13

**Table 26.**

Table showing reason of admission of children to Old Whint Hospital with number of cases under each heading.

Reason of Admission.	Number.
Malnutrition .....	20
Marasmus .....	68
Rickets .....	12
Pneumonia .....	10
Congenital Syphilis .....	3
Acute Catarrhal Jaundice .....	1
Abscess of Thigh .....	1
Impetigo .....	4
	119

Table 27.

Table showing deaths of children at Old Whint Hospital, with dates and causes, period of residence, and ages.

Date.	Cause of Death.	Days in Hospital.	Age.
19—1—24	Prematurity and Inanition	5	3 days
22—1—24	Debility from Birth and Inanition .....	67	2½ months
15—3—24	Pneumonia .....	9	18 months
25—3—24	„ .....	13	1 month
27—3—24	Cleft Falate and Inanition....	22	22 days
14—4—24	Prematurity „ „ „	18	1 month
24 4—24	Marasmus „ „ „	29	2 months
3—5—24	Pneumonia .....	12	8 months
16—6—24	Prematurity and Debility ....	46	1 month
16—6—24	Acute Catarrhal Jaundice .....	4	13 months
5—7—24	Broncho. Pneumonia .....	29	4 months
20—7—24	Prematurity and Inanition....	10	10 days
30—8—24	Marasmus and Inanition.....	4	4 months
2—9—24	„ „ „ „ .....	8	6 months
4—9—24	„ „ „ Convulsions	20	11 months
4—9—24	„ „ „ Inanition .....	8	5 months
3—10—24	„ „ „ .....	4	4 months
4—11—24	Abscess of Thigh and Septicaemia .....	77	9 months
12—11—24	Chronic Nephritis .....	19	21 months
28—11—24	Rickets and Gastroenteritis	15	9 months
29—12—24	Pneumonia .....	25	9 months

**MILK FOR MOTHERS AND INFANTS.**—At each maternity and child welfare centre full cream dried milk is on sale at cost price. When however the financial circumstances of the home warrant it, the milk powder is supplied free or at less than cost price. This is done under the Maternity and Child Welfare Act, 1918, and in accordance with the regulations of the Ministry of Health.

During the year approximately 336 cwt. of dried milk were disposed of, and of this, 16757 lbs. were issued free and 1337½ lbs. at less than cost price.

Cod Liver Oil Emulsion and Virol are also provided at the Centres at cost price or free in suitable cases.

**MATERNITY BAGS.**—Maternity bags are issued on loan to cases in which the mother has been unable to make the necessary provision. Bags have been lent out in 48 cases during the year.

**MINOR AILMENTS AND DENTAL DEFECTS.**—During the year 5 mothers and 121 children received treatment for minor ailments, and 60 mothers and 43 children received dental treatment at the school clinic.

Arrangements have also been made for the Dentist to visit Old Whint Hospital once a week, and advise the mothers regarding treatment and carry out any urgent treatment required. Cases requiring further treatment are recommended to attend the clinic after discharge from hospital.

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### **VIII.—LABORATORY WORK.**

A laboratory is provided at the Town Hall, and examinations of material from suspected cases of disease are made by the medical staff. The following table shows the investigations carried out during 1924.

Specimens.	Number Received.	Results.	
		Positive.	Negative.
Swabs for Diphtheria .....	1137	120	1017
Blood for Typhoid Fever.....	20	4	16
Blood for Typhus Fever .....	19	10	9
Sputa for Tuberculosis .....	632	221	411
Hairs for Ringworm.....	65	33	32
Pus and other fluids and dis- charges for various organisms	71	50	21
Other Specimens .....	22	5	17
<b>Total.....</b>	<b>1966</b>	<b>443</b>	<b>1523</b>

Outfits for the collection of specimens of sputa, blood specimens, throat swabs, etc., are supplied free of charge.

## IX.—LIST OF ADOPTIVE AND LOCAL ACTS, BYELAWS, AND LOCAL REGULATIONS AND ORDERS.

relating to the public health, in force in the district.

### ADOPTIVE ACTS.

The Infectious Disease (Notification) Act, 1889, applied to :

- (1) Ophthalmic Neonatorum, by Order of the Local Government Board, which came into force on the 7th April, 1910.
- (2) Acute Poliomyelitis and Cerebo Spinal Fever, by Order of the Local Government Board, which came into force on the 19th February, 1912.

The Infectious Disease (Prevention) Act, 1890. Adopted 7th January, 1891.

The Public Health Acts Amendment Act, 1890. Parts II and III adopted 1st April, 1891. Part IV adopted 1st July 1923, Part V adopted 24th October, 1894.

Public Health Acts Amendment Act, 1907, Sections 78, 79, 80, 81, 85, 88, 89 and 90, put in force 1st January, 1909. Sections 19, 25, 26, 27, 29, 32, 33, 34, 35, 36, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 66, 67, 68, 93, and 95, and Part V, put in force 23rd August, 1909.

### **LOCAL ACTS with Sanitary Clauses.**

The St. Helens Improvement Act, 1869.

The St. Helens Corporation Act, 1893.

The St. Helens Corporation Act, 1898.

The St. Helens Corporation Act, 1911.

The Ministry of Health Provisional Orders Confirmation (No. 2) Act, 1920 ; confirming the St. Helens Order, 1920, as to Tuberculosis.

The St. Helens Corporation Act, 1921.

### **BYELAWS.**

Byelaws as to Nuisances, confirmed by the Home Office, 11th May, 1870.

Byelaws as to Slaughterhouses, made by the Council on the 2nd March, 1870.

Byelaws with respect to Streets and Buildings, made by the Council on the 14th October, 1893.

Byelaws with respect to New Buildings, made by the Council on 2nd August, 1905.

Byelaws as to Alteration of Buildings, made by the Council on the 7th August, 1907.

Byelaws with respect to the Structure of Staircases and Ventilation of Buildings, made by the Council on the 3rd May, 1911.

Byelaw with respect to the Height of Rooms intended to be used for Human Habitation, made by the Council on the 1st April, 1914.

Byelaws with respect to Common Lodging Houses, made by the Council on the 2nd May, 1894.

Byelaws with respect to Houses let in Lodgings, made by the Council on the 2nd May, 1894.

Byelaws with respect to Female Domestic Servants' Registries, made by the Council on the 1st December, 1909.

Byelaws with respect to the Supply of Water, made by the Council on the 6th June, 1900.

Byelaws with respect to Cisterns, Waterclosets and Urinals, made by the Council on the 1st February, 1922.

Byelaws as to Spitting, made on the 23rd August, 1911.

## REGULATIONS.

Regulations with respect to Dairies, Cowsheds and Milkshops, made by the Council on the 2nd May, 1894, and Further Regulations made by the Council on the 28th October, 1910.

Regulations as to Public Abattoir and Cold Air Stores, made by the Council on the 2nd May, 1906.

## ORDERS—SHOP ACTS.

General Weekly Half-Holiday Order, made on the 7th August, 1912.

Weekly Half-Holiday Extension Order (Butchers and Chemists) made on the 4th December, 1912.

Closing Order (Motor, Cycle and Aircraft dealers) confirmed by the Home Secretary on the 30th January, 1913.

Closing Order (Tailors, etc. Shops) confirmed by the Home Secretary on the 10th December, 1915.

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## X.—FOOD.

**MILK.**—Twenty-four persons are registered as cow-keepers and there are about 220 cows kept for dairy purposes within the borough. The animals are inspected regularly by the Veterinary Surgeon appointed by the Council.

At the end of 1924 there were 75 persons registered as purveyors of milk, and during the year 362 visits for inspection purposes were paid to the dairies and milk-shops.

No applications have been received for licences under the Milk (Special Designations) Order of 1923.

**MEAT.**—There is a municipal abattoir with cold stores attached. Slaughtermen are licensed by the Committee and all animals killed are inspected by a qualified meat inspector.

There are two private slaughterhouses in the borough licensed for the slaughter of pigs only.

Table 28 shows the number of animals slaughtered and the approximate weight in lbs. of meat found diseased.

There are a number of shops where sausages are made and these, together with the butchers' shops, were regularly inspected during the year.

**Table 28.**

Number of Animals slaughtered and amount of diseased meat condemned during 1924.

1924	ABATTOIR.				PRIVATE SLAUGHTER HOUSES.			
	Number of Animals Slaugh- tered.	No. of Animals found diseased.		Weight in lbs. of Meat Con- demned	Number of Animals Slaugh- tered.	No. of Animals found diseased.		Weight of Meat in lbs. Con- demned
		Tuber- culosis.	Other diseases.			Tuber- culosis.	Other diseases.	
Beasts .....	3,398	326	328	42,148	—	—	—	—
Calves .....	579	—	7	---	—	—	—	—
Sheep.....	2,429	—	4	224	—	—	—	—
Pigs .....	8,105	157	113	9,104	2,649	55	14	1,005

**BAKEHOUSES.**—There are 110 bakehouses on the register— one is underground. Mechanical power is used in 14 instances. Six defects were found during the year and after notice each was remedied.

**UN SOUND FOOD.**—During the year as the result of inspection approximately 2,921 lbs. of fish, 4,256 lbs. of fruit, and a quantity of other food stuffs were found to be unsound and were destroyed.

**FOOD AND DRUGS ACTS.**—During the year 249 Formal samples and 2 Informal samples were taken.

The nature of the samples taken with the result of examinations by the Public Analyst are shown in Table 29.

The appended statement shows the action taken in the case of the adulterated samples.

(a)—Legal proceedings instituted under the Sale of Food and Drugs Acts :—

Sample 172. Milk ... ... 15% deficient in fat. Fined £5 and costs and ordered to pay Analyst's Fee.

(b)—No legal proceedings instituted, but the seller in each case warned :—

Sample	91.	Milk	...	...	3% deficient in fat.
„	195.	Milk	...	...	2% deficient in fat.
„	209.	Milk	...	...	8% deficient in fat.
„	210.	Milk	...	...	2% deficient in fat.
„	216.	Milk	...	...	2% deficient in fat.
„	2733.	Milk	...	...	Containing 2% added water and 4 grains dirt and dung per gallon.
„	2734.	Milk	...	...	6 grains dung and dirt per gallon.
„	2737.	Milk	...	...	8 grains dung and dirt per gallon.
„	2739.	Milk	...	...	7 grains dung and dirt per gallon.
„	2740.	Milk	...	...	6 grains dung and dirt per gallon.
„	2748.	Sausages	...	...	containing only 42% of meat.

**MILK AND CREAM REGULATIONS.**—175 samples of milk were examined during the year, but in no instance was any preservative discovered.

Two samples of preserved cream were purchased for analysis. Both samples conformed to the Regulations.

**Table 29.**

Number of samples taken under the Food and Drugs Acts and results of analysis by the Public Analyst.

ARTICLE	No. of Samples Taken.	No. found to be genuine.	No. Adulterated.
Milk ... ... ...	175	163	12
Butter ... ... ...	1	1	—
Margarine ... ... ...	6	6	—
Tea ... ... ...	6	6	—
Cocoa ... ... ...	2	2	—
Sausages ... ... ...	11	10	1
Tinned Foods ...	3	3	—
Coffee ... ... ...	5	5	—
Jams ... ... ...	6	6	—
Sugar ... ... ...	4	4	—
Baking Powders ...	2	2	—
Lemon Cheese ...	1	1	—
Beer ... ... ...	10	10	—
Fruit Cordials ...	4	4	—
Vinegar ... ... ...	4	4	—
Mincemeat ... ... ...	4	4	—
Cheese ... ... ...	7	7	—
 Total ...	251	238	13

## XI.—GENERAL SANITARY ADMINISTRATION.

**SANITARY INSPECTION OF DISTRICT.**—The total number of visits paid by the sanitary inspectors was 5,378. Table 30 contains a list of the notices served during 1924 and a record of the defects remedied.

Table 30.

Sanitary defects—Number of notices served 1924.

Reason for Inspection and Notice.	Preliminary notices served	Statutory notices served	Number remedied	Number <i>not</i> remedied at end of year.
To clear choked drains and w.c's	185	174	185	0
„ provide new and repair drains	18	12	18	0
„ provide and repair slopstones	37	35	36	1
„ repair w.c's, baths, basins, lavatories, and cisterns	86	77	84	2
„ repair roofs to dwelling houses	112	112	112	0
„ cleanse back yards and filthy dwellings	13	7	13	0
„ provide sufficient ashpit, ashplace, privy, pail closet, and w.c. accommodation	139	109	130	9
„ provide or repair eavesgutters and downspouts	117	130	116	7
„ repair pavement in yards and floors in dwellinghouses	82	48	80	2
„ remove fowls, pigs, offensive matter from near dwellinghouses	15	10	15	0
„ abate overcrowding of dwelling houses	2	0	2	0
„ replaster walls and ceilings and prevent dampness of dwelling	156	123	152	4
„ remedy defects in workshops	6	4	6	0
„ remedy defects in cowsheds and dairies	5	1	5	0
„ remedy miscellaneous nuisances	205	184	200	5
„ convert to water carriage system	4	437	845	199
Totals .. .. ..	1182	1463	1999	229

**Closet Accommodation.**—At the end of the year 1,331 privy middens and 1,440 tub and pail closets were estimated to be still in existence in the borough. Approximately 55 of the tub and pail closets are not in use and will probably be abolished. During the year 160 privy middens and 685 tub and pail closets were converted to the water carriage system.

Table 31 shows the estimated number of houses with the various types of sanitary conveniences existent in the borough each year since 1907, and Table 32 the number of conversions completed each year since 1904.

**Scavenging.**—Removal of house refuse and the emptying of pail closets and privy middens are carried out by the Borough Engineer's Department.

**OFFENSIVE TRADES.**—There are seven offensive trades carried on in the borough. Five of these are tripe boilers, one a tallow melter, and one a gut scraper.

**COMMON LODGING HOUSES.**—There are five common lodging houses registered for the accommodation of 223 lodgers. During 103 inspections, 4 infringements of byelaws were discovered and dealt with.

**HOUSES LET IN LODGINGS.**—There are only 15 houses registered in the borough as let in lodgings, but there are a considerable number which though not registered are being used for this purpose. These will have to be dealt with as soon as the present house shortage has been overcome.

**FACTORY AND WORKSHOPS ACTS.**—Factories—Six notices of defects remediable under Public Health Acts were received from H.M. Inspector of Factories. In all 14 inspections were made and all defects remedied.

Workshops :—The number of workshops registered is 195. During the year 361 inspections of these premises were made and as a result 9 notices regarding defects found were issued. All defects found were remedied during the year.

Table 33 shows classes of workshops registered.

Outworkers :—No lists of outworkers were received from employers during the year.

**Table 31.**

The number of houses with the various types of sanitary conveniences existing in the borough.

Year.	Water closet.	Tub and pail closet.	Privy midden.	Total.
1907 ...	6,196	7,150	5,154	18,410
1908 ...	6,503	7,120	4,907	18,530
1909 ...	6,718	7,071	4,795	18,584
1910 ...	7,041	7,028	4,616	18,685
1911 ...	7,626	6,863	4,338	18,827
1912 ...	9,205	5,734	4,019	18,958
1913 ...	10,493	5,058	3,542	19,093
1914 ...	12,316	4,058	2,829	19,203
1915 ...	13,100	3,704	2,529	19,333
1916 ...	13,298	3,592	2,472	19,362
1917 ...	13,455	3,422	2,353	19,230
1918 ...	13,504	3,401	2,325	19,230
1919 ...	13,794	3,259	2,177	19,230
1920 ...	14,447	2,890	1,893	19,230
1921 ...	14,765	2,692	1,818	19,275
1922 ...	15,315	2,492	1,623	19,430
1923 ...	15,859	2,125	1,491	19,475
1924 ...	16,800	1,440	1,331	19,571

**Table 32.**

The number of conversions to the water carriage system completed each year since 1904.

Year.	Privies.	Tub and pail closets.	Total.
1904	69	67	136
1905	80	64	144
1906	47	19	66
1907	237	125	362
1908	243	24	267
1909	106	38	144
1910	179	33	212
1911	270	129	399
1912	301	691	992
1913	460	646	1,106
1914	691	976	1,658
1915	300	380	680
1916	57	112	169
1917	45	103	148
1918	18	21	39
1919	148	142	290
1920	284	369	653
1921	75	198	273
1922	45	350	395
1923	132	367	499
1924	160	685	845

**Table 33.**  
Registered workshops.

Workshops on the Register (s. 131) at the end of the year.						Number
1	Dressmakers and mantle making	....	....	....	....	22
2	Milliners	....	....	....	....	16
3	Tailors	....	....	....	....	16
4	Hosiery Knitters	....	....	....	....	4
5	Joiners, builders, cabinet-makers and plumbers, etc.	....	....	....	....	25
6	Blacksmiths, wheelwrights, coach builders and masons	....	....	....	....	12
7	Weighing machine repairers	....	....	....	....	3
8	Cloggers and boot repairers	....	....	....	....	47
9	Cycle makers	....	....	....	....	1
10	Cooper	....	....	....	....	1
11	Tripe Dressers	....	....	....	....	5
12	Herbal Brewer	....	....	....	....	5
13	Pearl Ash Manufacturer	....	....	....	....	—
14	Seltzogene, charge maker	....	....	....	....	1
15	Tea wrapping	....	....	....	....	—
16	Drysalter	....	....	....	....	—
17	Leadlight makers	....	....	....	....	1
18	Cab washing	....	....	....	....	3
19	Saddler	....	....	....	....	1
20	Knackers Yard	....	....	....	....	1
21	Sundries	....	....	....	....	28
22	Ice Cream Makers	....	....	....	....	8
Total number of Workshops on Register						200

**RATS AND MICE DESTRUCTION ACT, 1919.**—Inspections under this Act are carried out by the Rat Officer. A Corporation rat catcher is not now employed. All piggeries, shippings, poultry yards, fish and meal merchants premises, etc., etc. were visited periodically and the occupiers advised.

**SHOPS ACTS, 1912—1922.**—During the year 394 inspections were made. Infringements of the Acts were discovered on 17 occasions and those responsible were warned. In five instances legal proceedings were instituted and fines imposed.

**CANAL BOATS ACT.**—No Canal Boat was inspected during the year.

## HOUSING.

The house shortage in St. Helens is more acute than ever. During the year only 103 new houses were erected in the Borough and as the increase in population for the year amounted to 1,600, this means that the rate of building is not even sufficient to cope with the increase of population, far less to replace the deficiencies of war years.

In this connection I do not think I can do better than repeat (with the necessary alterations in figures) from my report for 1922 :—

“Without taking into consideration the number of houses required to re-house persons displaced by the clearance of unhealthy areas, there are two immediate needs to be met—

- (a) housing the increasing population, and
- (b) re-housing tenants who are living in insanitary houses.

Since 1914 the population has increased by 7,925 persons, yet only 533 houses have been built. Allowing an average of 5 persons per house (the average family in St. Helens) this means that accommodation has been provided for only 2,665 people leaving 5,260 unprovided for. Again approximately 500 houses at present tenanted are in such a delapidated and insanitary condition that they should be closed and the present occupants re-housed. To supply these two needs at least 1,500 houses are required at once.”

The conditions under which many of the people are living are appalling. To quote only one instance that came to notice :—

A one storey cottage consisting of two small rooms and a scullery, occupied by husband, wife, and four children ranging from 4 years to 12 years of age, also sheltered another husband, and wife, with four children aged a few months to 6 years of age. The largest room in the house was only 12 ft. by 12 ft.

Can it be wondered that there is an increase in the death rate and the infantile mortality when such conditions exist.

Of the 103 houses erected during 1924, 95 were subsidy houses, and of these 20 were erected by the Local Authority and 75 by private or commercial enterprise. During the year building operations were commenced by the Corporation for a further 80 houses on the Windlehurst Estate.

The number of dwelling houses erected in each ward since 1904 is shown in Table 34.

**Table 34.**

The wards of the borough in which dwelling houses have been erected during the years mentioned.

Year.	North Eccleston	South Eccleston	Central	North Windle	South Windle	Hardshaw	East Sutton	West Sutton	Parr	Total
1904	105	53	7	37	18	47	59	1	70	395
1905	19	93	1	44	16	90	42	10	54	366
1906	11	51	—	31	13	31	73	24	39	260
1907	22	38	—	26	—	22	77	3	29	219
1908	2	52	—	4	2	27	22	—	20	127
1909	—	36	—	10	—	10	6	3	10	75
1910	2	31	—	10	—	24	18	—	25	110
1911	14	20	—	—	—	30	75	26	12	177
1912	35	28	—	4	—	26	28	58	1	180
1913	10	31	—	—	3	19	14	99	6	182
1914	10	42	—	9	16	14	20	63	29	203
1915	6	9	—	26	1	2	8	25	27	104
1916	0	12	—	1	1	2	4	16	16	52
1917	—	—	—	—	—	—	—	9	—	9
1918	—	—	—	—	—	—	—	3	—	3
1919	—	1	3	—	—	—	—	—	—	4
1920	—	—	—	—	—	—	—	—	—	—
1921	—	1	—	41	—	—	—	6	—	48
1922	—	1	—	164	—	—	—	—	—	165
1923	1	5	2	2	—	2	—	33	—	45
1924	2	24	—	25	—	—	2	45	5	103

The work carried out by the Department during the year under the Public Health and Housing Acts and Housing Regulations was as follows :—

### 1.—Unfit Dwelling Houses.

Inspection—(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts) .....	1044
(2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910.....	Nil.
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation.....	349
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation .....	152

### 2.—Remedy of Defects without Service of formal notices.

Number of defective dwelling houses rendered fit in consequence of informal action by the local Authority or their Officers .....	728
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### 3.—Action under Statutory Powers.

A. Proceedings under section 28 of the Housing, Town Planning, etc. Act, 1919.....	Nil.
B. Proceedings under Public Health Acts,	
(1) Number of dwellings in respect of which notices were served requiring defects to be remedied .....	557
(2) Number of dwelling houses in which defects were remedied :—	
(a) by owners .....	543
(b) by Local Authority in default of owners .....	14
C. Proceedings under Sections 17 and 18 of the Housing, Town Planning, etc. Act, 1909.....	Nil.

## APPENDIX.

Report on Outbreak of Typhus Fever in St. Helens during  
August and September, 1924.

Outbreaks of Typhus Fever in this country are now so rare that before discussing the occurrence of the recent local cases I would like to mention one or two general points regarding the disease. Typhus Fever is a disease invariably associated with conditions of filth and overcrowding. It was at one time very common in England, and in 1875 was the cause of 1,500 deaths. It is still prevalent in Eastern Europe—in recent years especially so in Russia—and it is still not uncommon in Ireland. In England, however, there has been a marked improvement in the last quarter of a century largely owing to the improved methods of modern sanitation, so that though occasional cases may be found at the ports, outbreaks are comparatively rare and the death rate has become infinitesimal. It is still however, a very deadly disease, the case mortality being about 35% to 50%. The last outbreak in this country occurred in Birkenhead in February and March, 1922, when there were twelve cases, three of which proved fatal.

The infection is carried by vermin, in particular by the body louse, but it is possible that fleas, bugs and the head louse may also carry the disease. After feeding on and absorbing blood from a typhus patient these vermin transfer their attention to a healthy individual and in due course the latter may develop the characteristic symptoms of the disease. It has been proved that lice after absorbing infected blood, retain their infectivity for 3 or 4 days and should they during this period lay eggs (nits) these nits when hatched out, are also capable of transmitting the infection. To how many generations this may be carried is not yet known. Hence the existence of nits in the heads of school children may constitute a grave menace in the presence of an epidemic.

The disease therefore is spread (a) by conditions favouring the breeding of vermin, i.e., want of general cleanliness both of person and the home, and (b) conditions favouring the spread of vermin from person to person, i.e., overcrowding.

To come to the recent outbreak in St. Helens this was first discovered on August 12th. After having been ill at home for nearly a week, a girl, aged 14, was sent to the Isolation Hospital from Bold Street, on the evening of August 11th by her own Doctor as suffering from measles. When seen by a Medical Officer of the Health Department on the 12th instant, Typhus Fever was suspected and this was later confirmed by Dr. Hanna, Chief Assistant Medical Officer for the Port of Liverpool. This child died 3 days after admission.

In following this case up it was found on visiting the home that the father had been ill at home for nearly a week and was being treated for "influenza." He also was an undoubted case of Typhus Fever and was removed to hospital the same day (August 13th) and later discharged well.

In pursuing enquiries it was found that about one month previously (July 13th) another child from the same house had been taken seriously ill and had been treated in the Providence Hospital for "pneumonia," and was discharged from that hospital well on August 10th. From a consideration of the history of this case and from the result of a blood test taken later, there is no doubt that this also was a case of Typhus and so far as is known, was the first case of the recent outbreak.

It will thus be seen that the infection existed in the town for at least one month before it came to our knowledge.

The home of this family is in one of the poorer localities of the town. Though the downstairs rooms were dirty and untidy they were not markedly so. The bedrooms however were very dirty and beds and bedding were infested with vermin as also were many cracks and crevices in the plaster. Structurally the house was not in bad sanitary condition. The sleeping accommodation consisted of the two upstairs rooms and in these were accommodated the father, mother and baby in one bedroom, and the three children in the other. There were no lodgers nor so far as could be ascertained had there been any, though the grand-mother appears to have stayed there occasionally. On the day following the admission of the father to hospital (August 13th) the whole of the remainder of the family, consisting of the mother and 3 children—

i.e., the immediate contacts—were also admitted to hospital, with a view to their thorough cleansing and freeing from vermin, and to allow of thorough cleansing of the house. All bedding and wearing apparel, etc., was disinfected by steam. The mattresses and flock beds were so infested with vermin that it was considered advisable to destroy them and compensate the owners—a sofa was similarly dealt with. The house itself was thoroughly disinfected by spraying and by arrangements with the owners of the house, the walls and ceilings were stripped and re-covered.

After completion of the cleansing and disinfecting of the house and the immediate contacts, these contacts,—the mother and 3 children—were allowed to return home after being in hospital 8 days. They were then visited daily by a Health Visitor.

All other possible contacts consisting of relatives, etc., were also kept under daily observation by a Health Visitor.

I might here point out the difficulty there is in enforcing isolation of contacts when such is desired. This can only be done by application of the local Authority—i.e., the Council—to two Justices for a removal order (P.H.A.A.A. 1907 Sec. 61) a proceeding which means delay to such an extent that it is useless.

We now come to the later series of cases. The immediate contacts of the original case, together with other contacts were as stated visited daily by a Health Visitor. The next case to occur was a child age 5 (K.L.) sister of the original case. This child took ill on August 28th, (i.e., 15 days after the removal of the last case and 7 days after discharge from hospital as a contact) and was seen on the 29th by the family medical practitioner who reserved his opinion. When seen later on the same day by one of the Medical Officers of the Health Department Typhus Fever was diagnosed and the child removed to the Isolation Hospital. This child recovered.

On the afternoon of the 30th the mother of the family took to bed because she "felt too weak to walk" and when visited on the next day (31st) was also diagnosed Typhus and removed to hospital. She unfortunately died on September 8th.

In following up the contacts of these cases the last patient's sister-in-law (K.K.) residing in Liverpool Street was found on August 31st to be suffering from the disease. She had been under observation since the commencement of the outbreak and though she repeatedly said she felt perfectly well, had, when "spotted" a temperature of 103° and was a well marked case. She was removed to hospital the same day and died on September 5th.

These last three cases illustrate the difficulty experienced in dealing with contacts at home. They had been seen daily by the Health Visitor, frequently also by a Medical Officer and the Sanitary Inspector, yet they must have been—especially in the last case—ill some days previous to discovery, and only afterwards would they admit that this was so.

The next case was a lad aged 22 (W.D.) living next door to the last case ; he was one of the contacts under observation at home. He was found in the early stages of the disease on September 7th and removed to Hospital the same day, where he died on September 16th.

The last case to occur (T.K.) was a son of the previous case removed from 42 Liverpool Street. This boy was admitted to hospital as a contact on the day after the admission of his mother. He developed the disease 13 days after isolation and eventually recovered after a very severe attack.

In dealing with these later cases the same procedure was adopted as in the earlier cases. The immediate contacts were so far as possible, removed to Hospital and (in these later cases) detained for 21 days so as to cover the incubation period. All other contacts were visited daily. Contacts not admitted to hospital were sent there for a bath and disinfection of clothing. Bedding and clothing was disinfected by steam, mattresses and articles which could not be disinfected were destroyed and paid for, and the houses were disinfected, and the walls, etc. stripped and cleansed. With reference to the cleansing of the houses I would like to acknowledge the assistance rendered by the house owners. In every case a most ready compliance was given to our wishes, and the cleansing and re-decorating was most thorough.

Further steps taken with a view to limiting the spread of the disease were as follows :—

- (a) House to house visitation of the houses in the immediate vicinity was carried out by one of the Sanitary Inspectors. Where necessary, disinfection of the house and lime washing of the walls was recommended and for this purpose lime wash and brushes were supplied. When necessary official notices to cleanse under Public Health Act, 1875, Section 46, were served but were required in very few instances. Disinfection of bedding, clothing, etc., or of persons was advised and offered wherever advisable.
- (b) Special attention regarding cleanliness was given to scholars attending the schools in the immediate vicinity. It is noteworthy that the two initial cases occurred in children, and as there is always a risk of mild or abortive cases in children special enquiries were made regarding all absentees.
- (c) All cases of illness in the vicinity were enquired into.
- (d) Leaflets and posters drawing attention to the dangers of the disease and the importance of cleanliness in combating it were distributed throughout the district and the local press gave valuable assistance.

As previously stated, the outbreak, though only known to the Health Department since August 12th, appears to date from about July 13th, and there have been 8 cases with 4 deaths. The last case occurred on 13th September.

The following is a summary of the cases in chronological order :—

Case No.	Initials.	Age.	Sex.	Relationship.	Approx. date of onset.	Result.
1	E. L., Jr.	10	F	1st case .....	13/7/24	Recovered.
2	M. L.	14	F	Sister .....	1/8 '24	Died 14/8/24.
3	J. L.	36	M	Father .....	7/8/24	Recovered.
4	K. L.	5	F	Sister .....	25/8/24	Recovered.
5	E. L., Sr.	36	F	Mother .....	25/8/24	Died 7'9/24.
6	K. K.	46	F	Sister of No. 3 .....	26/8/24	Died 5/9/24.
7	W. D.	22	M	Contact of case 6	4'9/24	Died 16/9/24.
8	T. K.	12	M	Son of No. 6 .....	13/9/24	Recovered.

Despite exhaustive enquiries the source of the outbreak could not be traced, but it is thought that as there had been quite recent cases in various districts in Ireland, and the affected neighbourhood is one in which Irish visitors are not uncommon, the disease may have been introduced from Ireland.

The steps taken to control the outbreak appear, so far, to have been effective. It must however, be recognised that, considering the period of time that elapsed between the first case and the recognition of its true character, and considering the nature of the locality in which the outbreak occurred further cases might develop. That it has been confined to three households within 50 yards of one another is so far satisfactory.